Telephony.

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WHY TELEPHONE AND ELECTRIC RATES CAN NOT BE COMPARED

In last week's discussion of telephone rates on this page, reference was made to the fact that in fighting rate advances the opposition often compares the telephone business with other utilities. These objectors usually cite comparisons that are unfair to telephone companies, as intelligent examination will show.

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Their favorite method of attack is to compare the telephone company asking for a rate adjustment with an electric light company whose rates are either stationary or have been slightly reduced for certain classes of service.

It is true that, while telephone rates are still slowly rising, lighting rates are more or less stationary, but, on account of fundamental differences in the two industries, such comparisons are illogical, and, as said, unjust to the telephone.

* * * *

Investigation will show that the truly remarkable cheapening of electrical current to domestic users over a period of years has been brought about by two fundamental causes: First, radical improvements have been made in the means for generating and utilizing the electrical currents; and second, greater volume of consumption has permitted greater volume of production which, by the nature of the industry, makes for decreased costs of output and distribution.

Telephone companies also have a wonderful record for technical developments, witnessed by the development of fine wire cables in exchange plants, improved methods of cable distribution, phantom circuits, machine ringing, pole-settting machines, etc. Notable improvements in methods of maintenance and traffic operating have also increased efficiency and kept down costs.

* * * *

But it must be remembered that labor, which in the two services is on about the same cost level—and which is higher, relative to pre-war levels, than commodities in general—enters into total telephone costs to a much greater extent than into lighting costs, and wages cannot be cheapened below the prevailing rates for skilled workers. *The wage bill of the telephone business forms a greater proportion of its expenses than is the case in any other public utility industry.*

The plant of the electric light company is primarily a generating machine of steel and copper, skillfully employed by a relatively small number of employes. The plant of a telephone company requires for its operation the unremitting watchfulness and intervention of comparatively many more human beings.

* * * *

The field for substantial economies which the electric light companies have found open to them for extracting more electric "juice" out of a given quantity of raw materials is hardly open to telephone companies at all, because current requirements are a very minor part of total telephone costs.

Dealing with the tiny voice currents, the problem of the telephone engineer has been less one of saving in current consumption than of more profound and delicate utilitization of it through new and improved apparatus, so as to have the transmitted speech as undistorted and distinct as possible, to increase the range of transmission, and to permit the more extended use of fine wire cables in exchange plants to which reference has been made.

* * * *

As to the second point—economies through greater output—any real comparison of electric light and telephone companies is impossible. They may be contrasted, perhaps, but not compared, for the conditions of the two are so radically different.

The telephone companies have obtained, so far as their size permits, the benefits of broadscale production through such means as more economical large-capacity cables, labor-saving machinery and standardization of switchboard and equipment, permitting their cheaper production in large quantities. That is one of the reasons why telephone rates have not increased nearly so much as costs in general.

But there is something more fundamental at work which wholly distinguishes the telephone company from the lighting company, and, indeed, from business in general.

In the lighting industry, electric current can be more economically generated and

distributed, other things being equal, when increased volume of operations is attained. The current flow for the various circuits is manufactured wholesale in a central plant and distributed to the users in bulk in small or large amounts as they wish. Each user takes as much as he needs out of the bulk supply without interfering with neighboring users.

When new users in the same area require service, the lighting company can ordinarily provide them current through existing circuits, and so the average cost of plant per user becomes reduced. And as the aggregate load handled at the generating plant increases, the opportunity for economy in production is also increased.

Acting on this principle, many electric light plants have been interconnected and consolidated with others, and larger generating stations have been placed where production is cheapest to serve most economically the whole area formerly served by separate plants.

* * * *

However, in the telephone business there is no such thing as wholesale production or distribution of service. Each call is necessarily an exclusive service, demanding the exclusive use of a circuit and of the time of the operators. While the electric company provides facilities merely for the company to reach the user, *the telephone company must provide facilities for each user to reach any other user.*

Instead of electric lines which serve numerous users simultaneously without interference, we have a multiplicity of telephone lines whereby each user—or on party lines, each few users—can be served individually and exclusively. Instead of a service which flows merely from the company to user, the telephone supplies one which flows throughout the whole field of communication between users, the company merely acting as an intermediary.

When two persons are conversing over a telephone channel, that channel must be devoted exclusively to their use. Telephone messages cannot, in the nature of things, be transmitted in bulk for the joint benefit of several or many people, like electric current or express matter. The effective use of the telephone depends upon the ability of persons to converse by themselves without interference from conversations by others.

Thus it is inherent in the telephone business that, no matter how large the company or its switchboards, the service must always be, so to speak, at retail—an individual service.

The telephone company, in fact, might be crudely compared to a railroad company that is required to run a small special train for each patron and, to insure the privacy of the patron, is also compelled to keep the whole line over which this train moves entirely free of other traffic for the time being.

This peculiar feature of the telephone business that the plant furnishes service between the users themselves, through the company, and not merely from the company to the users—brings about the fact that the interconnecting telephone network must become increasingly complex as the number of users increases.

It is obvious that, mathematically, the number of possible combinations between pairs of telephones increases very greatly as additional telephones are installed in a given area. Of course, but a fraction of the total possible combinations are ever made use of, but it is true that the telephone user *may* call for any one of these possible combinations at any time and the companies must, therefore, provide equipment whereby *any* desired connection can be effected upon request.

There is no possibility of getting away from the individual, retail character of telephone service, and it is precisely this fact that renders impossible any just comparisons of the telephone situation with that of any industry wherein wholesale methods are applicable, whether it be the electric light industry, the automobile industry, the railroads, or any other industry.

COMING CONVENTIONS.

Oregon, Portland, Hotel Portland, February 5 and 6.

Nebraska, Lincoln, Hotel Lincoln, February 23, 24 and 25.

North Dakota, Minot, Leland Hotel, March 9, 10 and 11.

Oklahoma, Tulsa, Mayo Hotel, March 9, 10 and 11.

Texas, Fort Worth, Texas Hotel, March 16, 17 and 18.

Kansas, Topeka, April 6, 7 and 8.

Iowa, Des Moines, Hotel Ft. Des Moines, April 13, 14 and 15.

Ohio, Columbus, New Neill House, April 21, 22 and 23.

New York, Rochester, May 19-21.

"Telephony" Announces
Its Annual Prize Article Contest

Practices in plant, traffic, commercial and general executive work are constantly changing. Something of interest—which may be made the basis of a helpful article—is always taking place in every branch of telephone work.

You have no doubt read many splendid articles dealing with the different phases of telephone work in "Telephony" during the past 18 months—a good many of them prize-winners in contests previously conducted. Perhaps they have suggested subjects on which you might write an interesting paper.

Think about your work and the phases of it that would interest other telephone people. Then commence work on an article for entry in *"Telephony's" Prize Article Contest.*

Details of the contest will be announced in next week's issue.

Stanley R Edwards

Editor.

Semi-Centennial of the Telephone

Telephone's 50th Birthday Sees Fulfillment to Marked Degree of Early Predictions—Past Achievements Warrant Anticipation of Astonishing Things in Next 50 Years—Presented Through Courtesy of the Bell Telephone Quarterly

By General John J. Carty,
Vice-President, American Telephone & Telegraph Co.

Of all the agencies employed in the communications of the world, the telephone is the most wonderful. More than any other, the telephone art is a product of American institutions and reflects the genius of our people. The story of its development is a story of our own country, of American enterprise and American progress. With very few exceptions, the best that is used in telephony everywhere in the world today has been contributed by America.

At Philadelphia, for so many years the home of Benjamin Franklin, they are planning to hold a World Exposition to celebrate the 150th anniversary of the signing of the Declaration of Independence. This makes it of peculiar interest to recall the fact that 50 years ago the first message ever transmitted by the electric telephone was spoken in a building in Boston, not far from where Franklin first saw the light.

The telephone, as well as Franklin, was born at Boston; and like Franklin, its first journey into the world brought it to Philadelphia where it was exhibited by its inventor, Alexander Graham Bell, at the Centennial Exposition in 1876, held to commemorate the first hundred years of the existence of our nation.

At Philadelphia was made the first public award to the telephone—America's gift to the nation on its 100th birthday. It was a supreme contribution to human progress, representing the highest product of American inventive genius, and a worthy continuance of the labors of Franklin, one of the founders of the science of electricity as well as of the Republic.

Nothing would have appealed more to the genius of Franklin than the telephone, for not only have his countrymen built upon it an electrical system of communications of transcendent magnitude and usefulness, but they have developed it into a powerful agency for the advancement of civilization, eliminating barriers to speech, binding together our people into one nation, and steadily reaching out to the uttermost limits of the earth so as to join all the nations together into one family.

The Ideal of Universal Service

The idea that such a world system would some day be established has been an article of faith with the early telephone pioneers and their zealous successors. In the charter of the American Telephone & Telegraph Co., written in the early 80's, there is to be found, set down in calm legal phraseology, their ideal of universal service. At the time that document was written, the numberless improvements in telephony were yet to be accomplished, and long distance service from New York to Philadelphia, had not yet been established.

Progress of the Past 50 Years, Says General Carty, Justifies the Belief That in Due Course Science Will Find a Way to Connect Entire World by Telephone.

Indeed, talking through underground cables of more than a few miles was then impracticable. A clause of this charter reads as follows:

The general route of the lines of telegraph of said association will be from a point or points in the City of New York along all railroads, bridges, highways and other practicable, suitable and convenient ways or courses, leading thence to the cities of Albany, Boston and the intermediate cities, towns and places; also from a point or points in and through the City of New York, and thence through and across the Hudson and East Rivers, and the bay and harbor of New York, to Jersey City, Long Island City, and Brooklyn, and along all railroads, bridges, highways and other practicable, suitable and convenient ways and courses to the cities of Philadelphia, Baltimore, Washington, Richmond, Charleston, Mobile, and New Orleans, and to all intermediate cities, towns and places; and in like manner to the cities of Buffalo, Pittsburgh, Cleveland, Cincinnati, Louisville, Memphis, Indianapolis, Chicago, St. Louis, Kansas City, Keokuk, Des Moines, Detroit, Milwaukee, St. Paul, Minneapolis, Omaha, Cheyenne, Denver, Salt Lake City, San Francisco and Portland, and to all intermediate cities, town and places; and also along all railroads, bridges, highways and other practicable, suitable and convenient ways and courses as may be necessary or proper for the purpose of connecting with each other one or more points in said City of New York, and in each of the cities, towns and places hereinabove, specifically or generally designated.

When we realize how little was then known concerning the means necessary to accomplish these things, we can appreciate how wild and impracticable this project must have appeared to most minds. Continuing, the clause further says:

And it is further declared and certified that the general route of the lines of this association, in addition to those hereinbefore described or designated, will connect one or more points in each and every city, town or place in the state of New York with one or more points in each and every other city, town or place in said state, and in each and every other of the United States, and in Canada and Mexico; and each and every of said cities, towns and places is to be connected with each and every other city, town or place in said states and countries,

and note the following remarkable language, prophetic of the wireless telephone:

and also by cable and *other appropriate means* (italics inserted) with the rest of the known world, as may hereafter become necessary or desirable in conducting the business of this association.

The progress which has been made during the last 50 years justifies the belief that in due course science will find the way to construct a telephone system connecting the entire world, so that the tens of millions of telephone users in the United States can readily talk, not only as they now do among themselves, but also with anyone else who has a telephone, wherever he may be located on the face of the earth.

The Mastery of Speech

The use of the spoken word to convey ideas distinguishes man from all other created things, and the degree of its extension by the use of the telephone, among the people of a nation, indicates in some measure the advance they have made in civilization. For their achievements in the spoken word, Greece and Rome have placed among the immortals the names of the greatest orators, and in modern times the nations have assigned to their masters of speech a foremost place.

It is not too much to expect that his-

tory will accord to our country the first place among the nations for its contributions to the extension of the spoken word throughout both space and time. As the ancients have honored Demosthenes and Cicero, so will the names of Bell and Edison be perpetuated for their immortal achievements—the telephone and the phonograph—the one transmitting the spoken word across continents and oceans, and the other transmitting the tones of the human voice to generations yet unborn.

On the 10th day of March, 1876, the telephone carried its first message. On that day, over a wire extending between two rooms in a building in Boston, Alexander Graham Bell spoke to his associate, Thomas A. Watson, saying, "Mr. Watson, come here, I want you."

These words then heard by Mr. Watson in the instrument at his ear, constituted the first sentence ever received by the electric telephone. The instrument into which Dr. Bell spoke was a crude apparatus, and the current which it generated was so feeble that although the line was only about 30 feet long, the voice heard in the receiver was faint, though distinctly audible to the ear of the young Mr. Watson.

Following the instructions given by Mr. Bell, Mr. Watson with his own hands had constructed the first telephone instrument and strung the first telephone wire. At that time, all the knowledge of the telephone art was possessed exclusively by these two men. Even they then knew only how to talk from one room to another in the same building; everything else concerning the wonderful art which we now possess was unknown to them and to the rest of the world.

At that time there was no university giving the degree of Electrical Engineer or teaching electrical engineering. There was no such thing as electrical engineering. In fact, in the advancement of the higher departments of science, our country, during the formative period of its history, had been so backward compared with the Old World, that American scientists were not yet able to make a satisfactory reply to the statement of De Tocqueville, who many years ago had said:

"It must be confessed that, among the civilized peoples of our age, there are few in which the highest sciences have made so little progress as in the United States."

And there were those who shared the doubt he expressed when he said:

"The future will prove whether the passion for profound knowledge, so rare and so fruitful, can be born and developed so readily in democratic societies as in aristocracies."

But the scientific investigations of Alexander Graham Bell marked the beginning of a new era in the history of science in our country. Rendered articulate by the telephone of Bell, American science was making more emphatic its answer to the forebodings of the distinguished French philosopher, as if to say in the words of Woodrow Wilson:

"Nature pays no tribute to aristocracy, subscribes to no creed of caste, renders fealty to no monarch or master of any name or kind. Genius is no snob. It does not run after titles or seek by preference the high circles of society. It affects humble company as well as great."

Scientific Recognition of the Telephone.

Although the telephone received an award of merit at the Centennial Exposition, it produced little immediate effect upon the public mind. It was regarded merely as an instrumentality of scientific interest and value. Among scientists it was received with deep appreciation, but even they failed to perceive its wonderful economic destiny.

Joseph Henry, whose scientific advice to Bell had been so helpful in time of discouragement, was among the first to give credit to the great inventor; and Sir William Thompson, later to be known as Lord Kelvin, said: "It is the most wonderful thing I have seen in America. I heard it speak distinctly several sentences. I was astonished and delighted. It is the greatest marvel hitherto achieved by the electric telegraph."

The invention of the telephone was the beginning of a great forward movement in the advancement of science in America. Soon after the discoveries of Bell came the phonograph by Edison, and then began the marvelous developments in electric lighting, in the transmission of electric power, and in the electrical operation of railroads.

While all of these things exemplify the value of science when applied to the uses of man, they have at the same time contributed directly or indirectly to the progress of scientific research conducted solely for the advancement of knowledge. It is safe to say that the movement for the support of pure science which, under the leadership of American statesmen, is now gaining such headway in this country, in a large measure grows out of these great practical achievements; and that, before the next 50 years have passed, the power of democracy to lead in scientific discoveries of the highest order in pure science will have been amply demonstrated. Then will science in our country have completed its answer to the critical, yet sympathetic author of "Democracy in America."

In 1876, the telephone was a thing of no practical use. Although Bell had contributed a marvelous discovery, there was no way to use it. In order to fit the telephone for practical use, a new art hitherto unknown—the art of telephony—remained to be created.

Dr. Bell's Prophetic Vision.

In forecasting the future of the then non-existent art, the comprehensive vision of Bell was manifested in a letter which he wrote in a vain attempt to enlist the support of British capitalists. In view of all that has been accomplished during the first 50 years of the telephone, by the associates and successors of Bell, this letter of his can be read today as the record of a grand prophecy which has been fulfilled.

The letter was written at Kensington, in England, on March 25, 1878, and addressed to some British capitalists. These are some of the remarkable things which Bell said in that letter:

It has been suggested that at this, our first meeting, I should lay before you a few ideas concerning the future of the electric telephone, together with any suggestions that occur to me in regard to the best mode of introducing the instrument to the public.

The telephone may be briefly described as an electric contrivance for reproducing in distant places the tones and articulations of a speaker's voice, so that a conversation can be carried on by word of mouth between persons in different rooms, in different streets, or in different towns.

The great advantage it possesses over every other form of electrical apparatus consists in the fact that it requires no skill to operate the instrument. All other telegraphic machines produce signals which require to be translated by experts, and such instruments are, therefore, extremely limited in their application, but the telephone actually speaks, and for this reason it can be utilized for nearly every purpose for which speech is employed. . . .

At the present time we have a perfect net work of gas pipes and water pipes throughout our large cities. We have main pipes laid under the streets communicating by side pipes with the various dwellings, enabling the members to draw their supplies of gas and water from a common source.

In a similar manner, it is conceivable that cables of telephone wires could be laid underground, or suspended overhead, communicating by branch wires with private dwellings, country houses, shops, manufactories, etc., etc., uniting them through the main cable with a central office where the wires could be connected as desired, establishing direct communication between any two places in the city.

Such a plan as this, though impracticable at the present moment, will I firmly believe be the outcome of the introduction of the telephone to the public. Not only so, but I believe, in the future, wires will unite the head offices of telephones companies in different cities and a man in one part of the country may communicate by word of mouth with another in a distant place.

I am aware that such ideas may appear to you Utopian and out of place, for we are met together for the purpose of discussing not the future of the telephone but its present.

Believing, however, as I do that such a scheme will be the ultimate result of the telephone to the public, I will impress upon you all the advisability of keeping this end in view, that all present arrangements of the telephone may be eventually realized in this grand system. . . .

In conclusion, I would say that it seems to me that the telephone should immediately be brought prominently before the public as a means of communication between bankers, merchants, manufacturers, wholesale and retail dealers, dock companies, water companies, police offices, fire sta-

tions, newspaper offices, hospitals and public buildings, and for use in railway offices, in mines, and other operations. Arrangements should also be speedily concluded for the use of the telephone in the army and navy and by the postal telegraph department.

Although there is a great field for the telephone in the immediate present, I believe there is still greater in the future.

By bearing in mind the great object to be ultimately achieved, I believe that the telephone company cannot only secure for itself a business of the most remunerative kind, but also benefit the public in a way that has never previously been attempted.

Marvelous as we now must regard this prophesy of Bell, it failed to produce in England the effect intended. This is not to be wondered at when it is realized that the practical means of doing all these things were then unknown. Science could go no farther without the aid of business.

Fortunately there were to be found at Boston at the time a group of far-seeing business men who, having confidence in Bell and his discoveries and prophesies, brought to his aid the much needed financial support and business capacity. Under the leadership of Hubbard and Sanders and Forbes and Vail, there began the development of the Bell system, which after 50 years has become the greatest single business institution in America—an outstanding example to all the world of what can be achieved by the cooperation of science and business.

The laboratory in which worked Bell and Watson conducted their experiments has grown until now it has a personnel of over 3,000 including engineers and scientists of the highest attainments; and counting these and the other trained specialists at the headquarters of the Bell system at New York, there are constantly employed 5,000 men—scientific and business specialists—whose sole duty it is to advance the telephone art and discover new ways of increasing its usefulness to the public.

Distributed through the various states of the Union there are thousands of other engineers engaged in construction and operation; and in the hundreds of different branches of telephone activity which have developed with the growth of the system, there are over 320,000 men and women employed each day in the telephone service.

The first telephone message was sent in 1876. So great has been the growth of telephone messages in 50 years that in 1926, 50,000,000 telephone conversations take place each day in the vast telephone plant which covers a continent.

The two telephones of 1876 have increased so that now there are more than 16,000,000 telephones inter-connected in the Bell system.

The first telephone line of 30 feet in length has grown to a network of more than 40 million miles of wire; and switchboards, buildings, pole lines, cables, conduits, and other forms of plant have been constructed, costing over $2,500,000,000.

During the year 1926 will be observed with appropriate ceremonies the semi-centennial of the invention of the telephone. Much will be said and written concerning the marvels which have been achieved during the past 50 years, in extending its use among all the people of our nation by means of a continental system of wires and by the most recent marvel of the radio. These things are largely dependent upon the fundamental discovery which was made by Alexander Graham Bell and upon the unremitting labors of the scientific men in those laboratories founded by him 50 years ago and which bear his name.

So much has been achieved during the last half century in the scientific and business development of the telephone in America, that we can look forward with a confidence born of experience to the astonishing things that will have been accomplished by the successors of Bell at the end of the next 50 years, when our country celebrates the second hundred years of its existence as a nation.

While it is impossible to predict in detail what will be the nature of these great new developments, we can be sure that the problems which we can now see ahead of us contain the promise of marvels greater tha anything which we can now imagine.

As recently stated by W. S. Gifford, president of the American Telephone & Telegraph Co., "The advances which have been made during the first 50 years of the work of the Bell system are unparalleled in the history of communications. They are contributions which will make forever memorable this great epoch in our progress.

"We are now at the beginning of a new era filled with boundless opportunities for advancement in the business and science of telephony. Upon the foundations which have been so securely laid, we can look forward to the telephone system of the future which, in effectiveness and useful service, will surpass all that has gone before."

THE GREAT SECRET OF SELF-DEVELOPMENT.

Give me two hours of your day, young man, and I will guarantee to make out of you whatever you will to be. Not just any old hours, however. I demand two specific hours. I demand of you the first hour of the day.

Have a full length mirror in your room and as you rise in the morning, rise with gladness, as the bird rises. Then stretch yourself up to your full height, throw out your chest, draw in your solar plexus, put your hands on your hips, raise yourself up on the balls of your feet a few times; and look at yourself and say, "Man, alive! Don't I look good today? I am going to beat the record today. Get out of the way while I start. I am boss of all today."

And I demand another hour, more important by far. I would rather have it than any other eight hours of the day. I demand the hour when you fall asleep. Do you not understand that the thoughts, impressions, passions, fears that dominate you as you fall asleep, will stay with you, mold you and make you all through the night?

Never go to sleep with a worry on your mind. It will ruin you physically and every other way if you do it. Only happy thoughts, bright thoughts, healthy thoughts and faith thoughts should be dominant, for then and only then can any man who cares about himself allow himself to go to sleep.

You will never get the most out of life until you realize in your life that we are not called upon to carry this world upon our shoulders—until you can rise in the morning with gladness and say:

"I cannot fail today because You have given me the divine right to succeed; I cannot fail today because I have discovered the mechanism by which success is obtainable; I cannot fail today because I am going to do the work of Him that sent me."

Until you realize that, you have not really begun to succeed nor to live. Try it for ten days, because the laws that govern it are just as immutable as the law of gravitation. You cannot fail because God is in His heaven and all is well with the world.—Dr. Hilton Ira Jones, Chemist and Psychologist, before The Executives' Club of Chicago.

Pennsylvania Association Elects Officers for Ensuing Year.

At a meeting of the board of directors of the Pennsylvania State Telephone & Traffic Association, held in Harrisburg, on January 8, the following officers were elected: President, H. E. Bradley, Harrisburg; vice-president, Eastern district, J. F. Stockwell, Philadelphia; vice-president, Western district, W. S. Paca, Oil City; secretary-treasurer, Cameron L. Baer, Harrisburg.

The directors are as follows: Eastern district: J. F. Stockwell, Philadelphia, chairman; G. B. Rudy, Sr., York; H. A. Oberdorf, Columbia; Cameron L. Baer, Harrisburg; J. R. Bailey, Williamsport. Western district: W. S. Paca, Oil City, chairman; J. H. Wright, Meadville; J. Z. Miller, Erie; K. B. Schotte, Kittanning; E. D. Schade, Johnstown.

Convention of Nebraska Association to be Held February 23-25.

The 1926 convention of the Nebraska Telephone Association will be held February 23, 24 and 25, at Hotel Lincoln, Lincoln, Neb., according to an announcement made recently by the committee on arrangements composed of G. E. Becker, F. R. Landers and H. F. McCulla.

Moves Its Automatic Switchboard

Automatic Equipment Weighing 150,000 Pounds and Occupying Space 80 Ft. by 40 Ft. in Main Exchange of Mutual Telephone Co., Erie, Pa., Raised Six Feet, and Moved 100 Feet, Into New Building Without Service Interruption

By H. E. Clapham,
Advertising Manager, Automatic Electric Inc., Chicago

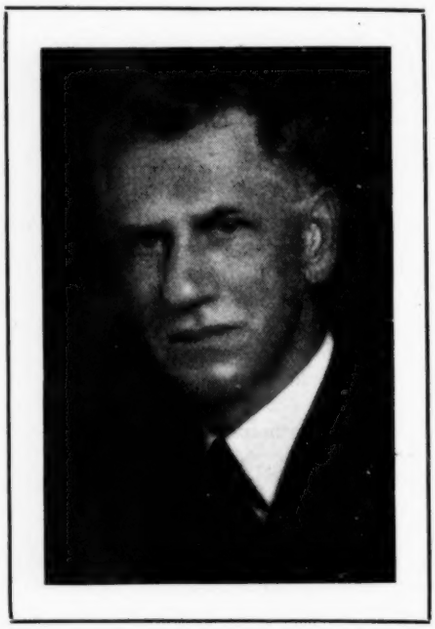
An engineering accomplishment of such magnitude that many declared it impossible was recently completed by the Mutual Telephone Co., of Erie, Pa., in collaboration with the installation department of Automatic Electric Inc. and a local contractor's crew.

The "impossible" feat consisted of the moving, bodily, of the 6,800-line Strowger automatic switchboard from the old Main office of the telephone company to a new structure fronting on the next street, without in the least affecting the heavy traffic which has always been a feature of the Erie telephone system.

The remarkable growth of the Erie exchange in the past few years, much of it unforeseen even by the most optimistic, has necessitated many changes and rearrangements of the central office equipment during that time, but none of them so peculiar in the nature of presenting so many apparent difficulties as the one just completed.

When the automatic switchboard was installed early in 1918, a new building was erected which, it was confidently expected, would serve the downtown district for a considerably longer period than it actually did. The original installation had a capacity for 5,300 lines but has since been expanded to serve 6,800 lines.

This does not take into account the establishment of two branch offices, west and south, nor an additional 1,500 lines now awaiting installation in the Main office as a result of the purchase of the local Bell property, physical merger with which will be completed within a few weeks.



John Z. Miller, General Manager, Mutual Telephone Co. of Erie, Pa., Is Very Proud of His Organization Which in Conjunction with Automatic Electric Inc., Engineered and Successfully Carried Out a Most Unique Move of Automatic Equipment Without Any Interruption of Telephone Service to the More Than 18,000 Subscribers in Erie.

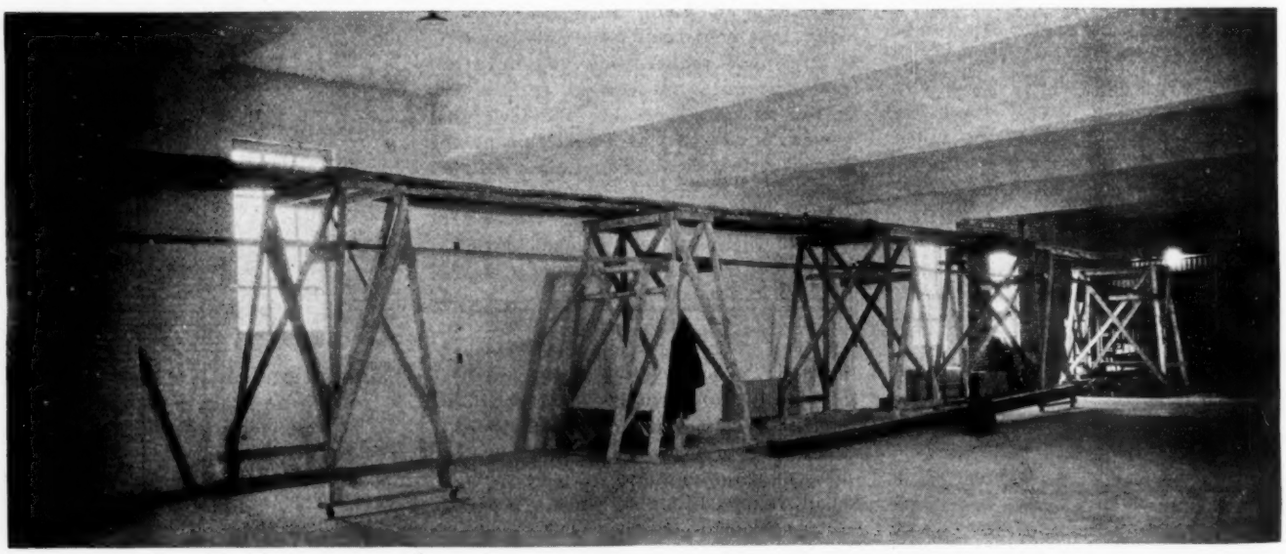
In 1921, the traffic capacity of the switching equipment was increased through the adoption of rotary type secondary line switches, and later, the telephone number capacity was increased by means of the introduction of an additional group of selectors, expanding part of the system from a four-figure to a five-figure basis. Both of these changes, complex as they were from an engineering standpoint, were completed entirely without interruption to service.

More than a year ago, it became apparent that the Main office facilities would soon become entirely inadequate and that a new building would have to be provided, especially so as the Mutual Telephone Co was looking forward to the merger with the local Bell exchange, thus adding considerably to its total number of stations. How to arrange for a new structure into which the central office equipment could be moved without interruption to service was the problem with which the company was confronted.

A site was secured fronting on the next street to that on which the old exchange stood, in such a location that the old building and the new would stand back to back. Plans were immediately drawn up and the construction of the new building was begun early in 1925.

The new structure, now nearing completion, is an especially noteworthy piece of work. Consisting of two stories and a basement, with a splendidly proportioned facade of white figured marble, it is a monument of which Erie may well be proud. It is easy to see that no effort has been spared to make it worthy of the high ideals of service for which the Mutual company has earned a just reputation.

The second floor of the new building



The Temporary Switchboard Cables Running from the New Main Distributing Frame to the Line Switches in the Old Building—As the Equipment Moved Forward, the Slack in the Cables Was Pulled Up Back of the Main Frame.

having been completed ready for receiving the central office equipment, there then remained the big problem of moving the equipment from the old building to the new.

Two plans of action had been given consideration. The first was to begin to install switchboard equipment in the new building, one 100-line unit at a time, transfering the lines to the new building one by one, and then moving the units thus released from the old building to the new. Slow and awkward though such a plan might prove, it yet had the advantage of being not only easily possible, but relatively simple from an engineering standpoint. But it would, at best, have taken a year.

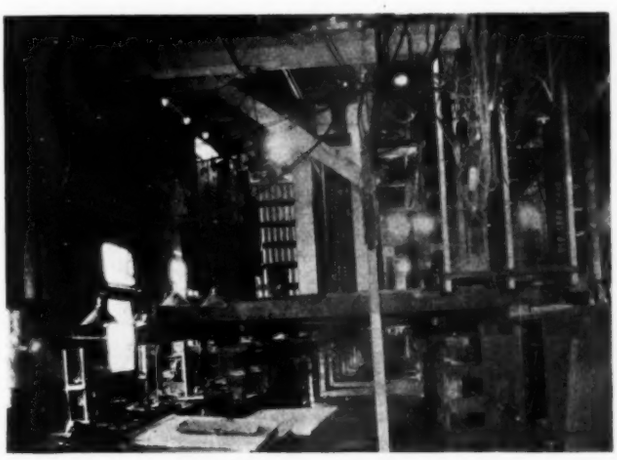
The Roof of the Old Building, 80 Ft. by 40 Ft., Raised Six Feet to Allow for Raising of Equipment Inside.

The other plan was much more ambitious. This was to move the entire switchboard bodily into its permanent position in the new building in a single "jump" without interfering with the service.

When this plan was first proposed, many were skeptical. Several conferences were held between John Z. Miller, general manager of the telephone company, his local engineering representatives, and representatives of Automatic Electric Inc. Although many engineers had expressed the opinion that it could not be done, the more optimistic of those who had to decide had their way, and work proceeded accordingly.

The difficulty of the situation was aggravated somewhat by the fact that the second floor of the old building, on which the equipment rested, was some five feet lower than the floor to which it was to be moved. It was not only necessary to raise the switchboard that distance, but to do this required the raising of the roof of the old building.

This then was the first step in the work. The roof, of steel-truss construction was raised by means of long threaded rods fitted with nuts, mounted on timbers set on the side walls.



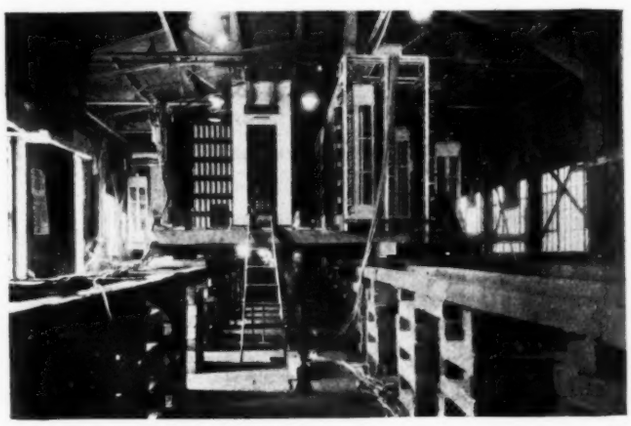
Switches Elevated Six Feet, Ready to Go Forward to Their New Position 100 Feet Distant.

The next stage required the raising of the switchboard to a position level with the floor of the new building. To do this it was necessary, first of all, to lift each switchboard unit a little at a time by means of jacks, and then to build a false floor under it by means of cross timbers rigidly braced so as to hold the various units in their proper relative positions.

The rear walls of the two buildings being in close juxtaposition, the removal of the brickwork of the old building provided a clear space for the moving of the switchboard, which was then mounted on rollers ready for the power to be applied.

Before this work was done, however, the line cables were half-tapped and brought in to the new main distributing frame in the new building, while long switchboard cables were run from the frame to the line units of the switchboard, being only temporarily secured at the frame. These cables were being cut in service a line at a time for the period preceding the actual work of moving, so that by the time the move was ready to begin, the traffic was already passing through the new frame.

A local contractor was engaged for that part of the work that required no knowledge of a telephone engineering character, the power for moving the switchboard being furnished by a power-driven winch mounted on a motor truck out on the street. Inside the building, a complex arrangement of reducing tackle was secured to the two steel cables that were visible from the street, one of them terminating at the winch on the motor truck and the



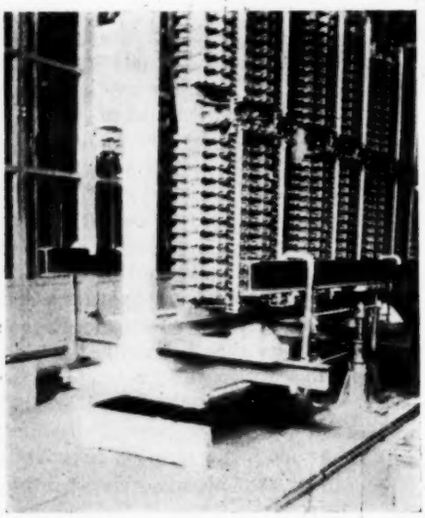
Switches on the Way, False Flooring, Rollers and Blocking Are Clearly Shown.

All the Way Through—Switches in Place in New Building, Viewed from Old Building.

other anchored to two trees on the other side of the street.

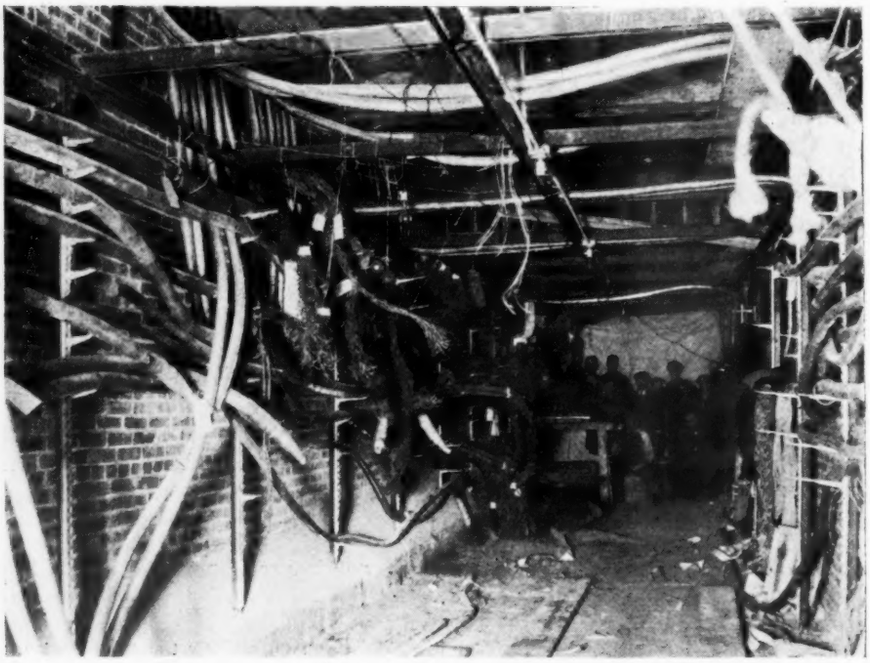
The move was begun at 8 o'clock on Monday morning, January 11, and continued until about 3:30 in the afternoon, at which time the entire switchboard was in position on the floor of the new building, but, of course, mounted on the rollers by means of which it had been moved.

Covering an area of 3,200 square feet



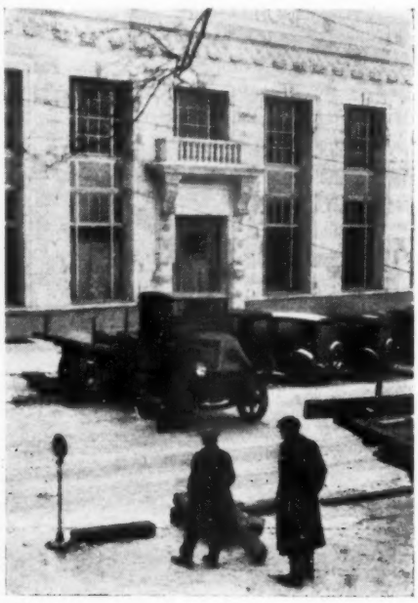
Method Used in Raising the Switches Off of the Floor.

and weighing more than 150,000 pounds, the switchboard—moving inch-by-inch over the 100-foot span to its new location, with absolutely no interruption in service, supervisory lights flashing their customary signals, and switches clicking incessantly—formed an impressive sight. The smoothness with which the work proceeded was broken only by the frequent necessity for changing the positions of the rollers and for taking up the slack in the switchboard cables.



One End of Cable Tunnel (165 Feet Long) Showing Cable Splicing.

Because of the fact that this was the largest move of its kind ever attempted interest in the event was by no means confined to local people. The officials of the Mutual Telephone Co. had invited telephone operating men from many neighboring companies to be present. Among these were A. J. Curren and H. O. Dutter of the Elyria Telephone Co., Elyria, Ohio; W. S. Paca of the Petroleum Telephone Co., Oil City, Pa.; W. H. Wilson of the Huntington-Clearfield (Pa.) Telephone Co. John H. Wright of the Jamestown (N. Y.) Telephone Corp., and several representatives of the Bell Telephone Co. of Pennsylvania, including D. C. Chisholm, C. S. Krouse, F. M. Donnaugh, T. M. McGregor and C. Montague. Automatic Electric Inc. was represented by T. C.



Truck in Front of Mutual Telephone Building Which Furnished Motive Power to Operate Cable That Pulled the Telephone Equipment Into Place.

Erie's New Main Telephone Office, a Building of Which the City May Well Be Proud.

Thompson, general superintendent, W. H. Perkins, installation department, and W. G. Fariss, engineering department.

An immense amount of credit for the success of the undertaking is due to the joint efforts of the local engineering staff, under the leadership of M. V. Wright, plant superintendent, and the installation crew of Automatic Electric Inc., represented by Matty Abt.

Burt F. Huffman was in charge of the cable work. This involved half-tapping 35 600-pair cables, 26 of which were the Mutual company's and 9 the Bell, bringing them into the cable tunnel and extending them to the new rack. As all of these changes—an operation of considerable magnitude it will be agreed—were made with no interruption whatever to the service, great credit is due Mr. Huffman and associates for the successful cutover.

Both President A. A. Culbertson and General Manager, John Z. Miller of the Mutual Telephone Co., expressed themselves as being particularly gratified with the outcome of what might, in less capable hands, have led to innumerable difficulties.

Telephone Exchange at Alma, Ark., Changes Owners.

The property of the Alma Telephone Co. at Alma, Ark., which for several years has been operated by C. B. Stewart, has been purchased by Henry Weese, who lives near Alma.

The property includes 100 miles of wire, the exchange and the residence at Alma in which Mr. Stewart has made his home. The value of the property is estimated at $16,000. Mr. Weese will move to Alma.

Knapp Interests Acquire Medina and Brunswick Properties

Frank A. Knapp and associates, of Bellevue, Ohio, have purchased the properties of the Medina Telephone Co. and the Brunswick Telephone Co. for a consideration of approximately $250,000. The Medina company operates about 1,725 stations and the Brunswick company 535.

With the addition of these properties the Knapp interests will operate 21 exchanges, serving 18,000 subscribers.

Col. Coolidge Has Telephone Put In to Communicate With Son.

In order that President Coolidge might hold conversations with his father, Colonel John C. Coolidge, who is bedridden at the Coolidge homestead, at Plymouth, Vt., a telephone was installed January 22, in the old farmhouse at Plymouth Notch. The elder Coolidge had refused steadily to have a telephone in his home and only his present disability caused him to accept the innovation.

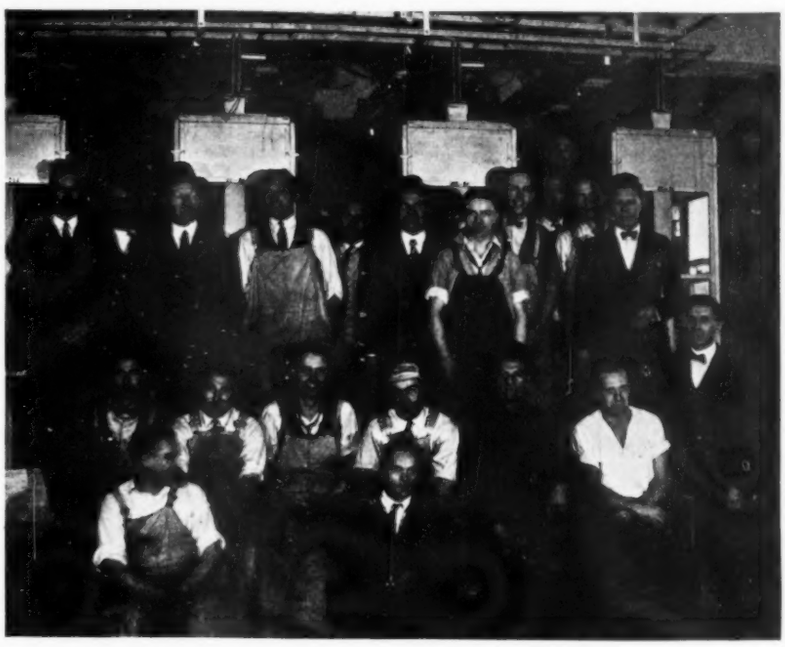
Colonel Coolidge, who is more than 80 years old, lost the use of his legs several weeks ago. His physician, Dr. Albert W. Cram, said the condition was due to faulty circulation brought about by "heart blocks."

During the illness of Colonel Coolidge messages between his home and the White House have been sent and received by Dr. Cram and others at the general store across the road from the farmhouse.

Once before a telephone was placed in the Coolidge house at Plymouth Notch. On the night of August 2, 1923, when news of the death of President Harding found Mr. Coolidge visiting his father at the old home, linemen rushed connections to the farmhouse, which had become suddenly the temporary White House.

President Coolidge communicated with Washington from his father's house by telephone until the following day, when he hurried away to the capital. Then Colonel Coolidge had the instrument taken out on the ground that he did not wish to be bothered by many calls.

Colonel Coolidge's neighbors said that the prospect of being able to talk directly with the President had cheered him greatly.



Automatic Electric Inc. Crew of Installers and Engineers.

Telephone Courtesy in Department Stores Promotes Sales.

Carson, Pirie, Scott & Co., Chicago, use a tag over the mouthpiece of their telephone transmitters to remind employes of the value of courtesy:

"This telephone affords an opportunity for you, through your courtesy, to enlarge this store's reputation for painstaking service. In its daily use remember that, so far as the person at the other end of the line is concerned you are Carson, Pirie, Scott & Co."

When a customer telephones the Macy store, in New York City, this greeting comes over the wire, "R. H. Macy & Co., good morning."

There's something of a pleasant little shock in that unexpected "Good Morning." How many stores are there that give customers who call them up to spend real money with them the common politeness of a "Good Morning"?

In taking telephone orders let the customer know who you are when you are talking to her. When she gives you her name, just say "Oh yes, this is Mr. Smith speaking, Mrs. Jones." Try this out and you will find that it has made a new customer for you. Besides, if the purchase is not filled correctly, the customer will know just whom to ask for.

This is the suggestion published in a Little Rock, Ark., newspaper. It's a good item to pass on to the local newspaper editor for use when he runs short of "fillers."

Sleeps in Telephone Booth Waiting to Talk to Wife.

Falling asleep in a telephone booth while trying to get the wife on the telephone is not disorderly conduct, and Judge Eberhardt of Chicago dismissed charges against Robert Drake.

Drake, according to testimony, entered a booth in a Chicago drug store one night, and was found there asleep at 8:30 the next morning by the druggist. He explained that he tried to call his wife and got a "busy" signal several times, and then fell asleep. "I'm always falling asleep like that," he said.

At the Lima Operators' Conference

Interesting Facts Concerning Telephone Practices in Many Lands—Some Factors Involved in Furnishing Good Service—Spirit of Service Needed in Every Department—Papers Read at Operators' Conference at Lima, Ohio

Telephone Girls of Many Lands.

By Irene Bresman,
Local Supervisor, The Lima Telephone & Telegraph Co., Lima, Ohio.

Inside the grass-roofed hut, someone was talking at the top of his lungs. The sound of his voice, roaring an unintelligible African jargon, passed through the mud and bamboo walls almost as easily as through the open door. Suddenly it stopped; three or four husky natives were loafing about the hut, waiting for a resumption of the monologue. The nature of the entertainment became apparent on looking through the open door of the hut. Within was a swarthy individual using the telephone. He sat yelling into the instrument, while his audience drank in every word.

The rural telephone operator in Abyssinia—for such is the occupation of the man in the mud hut—reads over the telephone, messages which are written out and handed him for transmission. The public is not allowed to use the instrument directly.

Probably there are not many places where telephone operators are as different from their American prototypes as in far-away Abyssinia. But telephone operators are not as standardized as telephone equipment. For instance, those in Japan and Cuba are as different from each other as both are from the typical American telephone girl.

In the Mikado's empire, the switchboards are "manned" by very young girls. Before the earthquake, the average age of telephone operators at Tokio was said to be only 14, and some were employed as young as 13.

The extreme youthfulness of telephone operators in Cherry Blossom land forms an interesting contrast to the maturity of some of the telephone workers in Cuba. There, at least in the small rural exchanges preference is given to the widows with grown daughters. The telephone exchange is placed in a dwelling house. The widow is installed as manager and her daughters become the operators.

In this way, the fatherless family is able to earn a good living, without the necessity of the girls going out of the home to work, which is still disapproved by those who hold to the old Spanish traditions.

Far away from Cuba is a very different country, where also many people still cherish the notion that "Woman's place is in the home." This is Turkey. The tenacity with which the Mohammedan Turks cling to their traditional ideas about woman's sphere has resulted in there being comparatively few Moslem operators in the Turkish telephone service. Most of the operators in and around Constantinople are Greeks, Jewesses, Armenians and others not of Mohammedan faith.

Another Oriental country with telephone operators of distinctive character is British India. In the large cities the switchboards are operated by girls of European and Asiatic ancestry. In smaller places the telephone workers are almost all men.

Men find employment as telephone operators in some other countries also. In Great Britain "the Voice with a Smile" is a girl's voice in daytime and a man's voice at night. The English telephone girls are not called operators as in this country, but "telephonists."

This matter of what telephone operators are to be called has recently been given official attention in Russia. The soviet government, it seems, appointed a commission to suggest improvements in the telephone service. The first recommendation of this commission to be reported to the American press, is that hereafter, telephone operators must be addressed as "comrade."

In Germany, the operators have been forbidden to wear jewelry, lest it arouse the envy of their fellow workers and even bobbed hair is forbidden in the German telephone exchanges.

Moshi-Moshie has been mentioned as the Japanese equivalent of "Hello." Every country has its own telephone phraseology, which sometimes shows curious divergencies from standard American practice.

In England, telephone users say "Are you there?" when they get a number and, as one Englishman remarked, "Of course, if you are not there, you don't answer." Another English phrase that sounds strange to American ears is, "You're through," meaning "Here's your party." When an American is through, he's ready to quit; when an Englishman is through, he's just about to begin.

Telephone operators in different countries probably have fully as many points of similarity as of difference. The limits of the present article permit of mentioning only one—sooner or later most of them get married.

Service and How to Give It.

By Helen Maus,
Toll Instructress, The Lima Telephone & Telegraph Co., Lima, Ohio.

The product which the telephone business furnishes is service, and this service consists largely of connections between subscribers, which are established reasonably quick, and over which they can talk to each other satisfactorily.

In giving service we must know our work from A to Z. You may be perfectly grounded in the fundamentals of the work and know the policy of the organization both forward and backward, but if you have not established yourself in such a position to deliver the information on common ground with the public and your employes, your usefulness to the industry is cut to the danger point.

I will admit the public is a large group, and you will probably never reach them all; but like many other things, it is not impossible—through honest dealings, fair and just policies. If you have established yourself as a leader, you have made one big step toward the gaining of the confidence of your subscriber and also your operators. It is up to you to keep your business on the high plane which it deserves.

A successful leader has one thing to study, and that is himself. The leader, in my opinion, who succeeds is the fellow who sits with steady nerves, studies himself and his business, trying to realize his faults and correct them in the right way, accepting criticism as a favor and who tries to help his associates rather than capitalizing on their faults.

Do you realize that the employes of today are the executives of tomorrow, and that it is our business to make them such? One of our main lines of thought toward proper training of employes is to see that they are well trained, as the public understands the principles and policies that direct our business. It is our duty to see that our employes see the importance of giving good service.

A new student should never be neglected. A supervisor should have patience and do her utmost to encourage her, never forgetting that she was a student herself. A student operator is very easily discouraged, but if properly encouraged by her supervisor will make an efficient operator. A supervisor should make her criticisms and suggestions in a kindly manner and explain the methods by which she is being trained. She should be able to recognize good work and be prompt in letting an operator know that she is making progress.

It is the duty of the supervisor to study the weak points of the operator, bring them to her attention and by careful supervision, test her out to strengthen these weak points. She should be very careful about carrying on conversation with her opera-

tors while on duty, and never take sides between one operator and another.

Study the work you have done in the past and see if you can not improve on the method of doing it. Get the tools necessary to do a better job.

Have you talked over your plans with others in your charge? Have you treated your employes in such a way that they are ready and willing to do all they can to help the company?

How many times do we say "Had I known that was going to happen, I would have planned differently?" Of course, you cannot foretell many things—but you can help yourself very much by keeping your ears and eyes open to the affairs of your operators and the company as a whole.

Your customer will likely ask questions; and if you do not know your work, you will lose his business, because he is aroused at your lack of knowledge. Remember, things done by halves are never done right.

The operator who is content merely to keep her name on a payroll, who lacks either desire or power to labor for the best, is little worthy of her name. Work of the type most needed in our field of endeavor is the successful carrying out of that which reflects the most credit upon our profession. An operator must, therefore, enjoy giving service.

If we do our work well and if we do everything in our power to do it right, even though we advance just a little each day, we are helping to make the business a success instead of a failure.

Now let us stop and explain what it means to give service. An operator must be accurate, courteous and have speed and cooperation, which means a lot for our company. Accuracy means keeping closely in touch with the practices we are being taught and avoiding mistakes of all kinds. A toll operator has more instructions, possibly, than a local operator, but these instructions are logical and easy to learn. You should not allow yourself to become confused at any time because of failure to know the proper operating practice.

Next comes courtesy. Our service should have as its foundation, sincere courtesy; then it will convince patrons at all times that we are trying to do our best, even when we cannot give all the patrons have requested. You will find that through the lack of courtesy our company will lose more calls than in any other way, so let us be courteous at all times and in all places.

Next is speed. We find that, if we are accurate, we are bound to gain speed, and the public will advertise for your company through speed as much as anything else.

Of course, speed is not the only thing, but let us give an example of an operator who has been working all day and who evidently is tired from her day's work. A subscriber calls in for a number; the operator drawls out the number when verifying it to the subscriber—and then he gets the "busy," or reaches a wrong number. That will give the patron the impression that the telephone service was "all in" at that time of day. Why? Because of the lack of "pep."

We must have operators with plenty of "pep" at all times and not let our patrons know that we have worked our eight hours. A voice with a smile and full of life is needed by our operators at all times.

Last is cooperation, which is a word that cannot be explained too much. We know that we cannot work alone. We must have help, and how are we going to get it? Through cooperation, of course. One girl must cooperate with another and also with each patron. In order to do this she must be efficient. Every detail in which she can help must be quickly taken care of. When a neighboring operator has more than she can handle, speed up and help her. Cooperation with the subscribers may be obtained by good will. Let a pleasant spirit guide us in each task. Do not lose your temper, but keep smiling.

We must also cooperate with our company. Wrong routings, not clearing lines, or holding a line when not necessary, oftentimes mean loss of revenue. This may be prevented by more careful attention to our work and by cooperating with one another, thereby working in behalf of our employer, "the company."

Now, let us ask ourselves these questions: Are we building the telephone industry right? Are we cooperating and doing our part?

Let us resolve today to pull—a long pull, a strong pull and all pull together. Go to work with the determination to be a winner. Keep your eyes and ears open for all the information you can get. Ask questions and study your job. Do everything you can to make yourself valuable to your employers.

The Spirit of Service.

By Grace Peltier,
Toll Chief Operator, The Lima Telephone & Telegraph Co., Lima, Ohio.

"Spirit of service," or we might call it cooperation, may be defined as "bolts used in holding intact many small parts or pieces, which make one huge mechanism." The telephone company is this large machine; we are the parts that make up this machine, and we must be held together by a spirit of service.

No one department is any more important than the other; although each one has a different line of work to perform, each department is dependent on the other in rendering service to the public.

Cooperation does not mean keeping one eye on your co-worker—to see that he is doing his work—and trying to do your own work at the same time. If you are doing this, your one eye may be blind to your own defects, and your part of the machine may become weak, allowing the service we are turning out to become of an inferior grade. But if you have accomplished your own work and find by a cheery word or deed that you can help your fellow worker along, then you are tightening the bolts in this machine, and giving the Spirit of Service.

The telephone company has been compared to a circus, each department being responsible for some certain work, enabling us to put on the show. The traffic department puts on the performance, the public is our audience. Are we giving them a good show for their money? Are they getting value received?

The good will or ill will of the public towards the telephone company, is to a great extent created by the traffic department. If a subscriber meets with a wide-awake operator, one with a "voice with a smile," he is satisfied that he is going to get the best service she has to give. But on the other hand, if he meets with a sarcastic, indifferent voice, he immediately feels he will not be given the service he is paying for; judging all from this standard, he immediately begins to knock instead of to boost our service.

Not only is this spirit of service needed between departments, but it must exist between employes of each department and between employer and employe. If this spirit prevails in your department between chief operator, supervisors and operators, it will soon show in our service to the public.

If this spirit is prevalent among your operators, they become more valuable, as they learn to like their work and become interested in it from all angles. The valuable employe is one who does things because he likes his work, and not the one who does his work because he thinks he is compelled to do so.

A good motto for us to use would be: "Service, Satisfaction and Confidence." Good service means satisfaction, and the telephone employe who gives good service, gains the satisfaction of the subscriber.

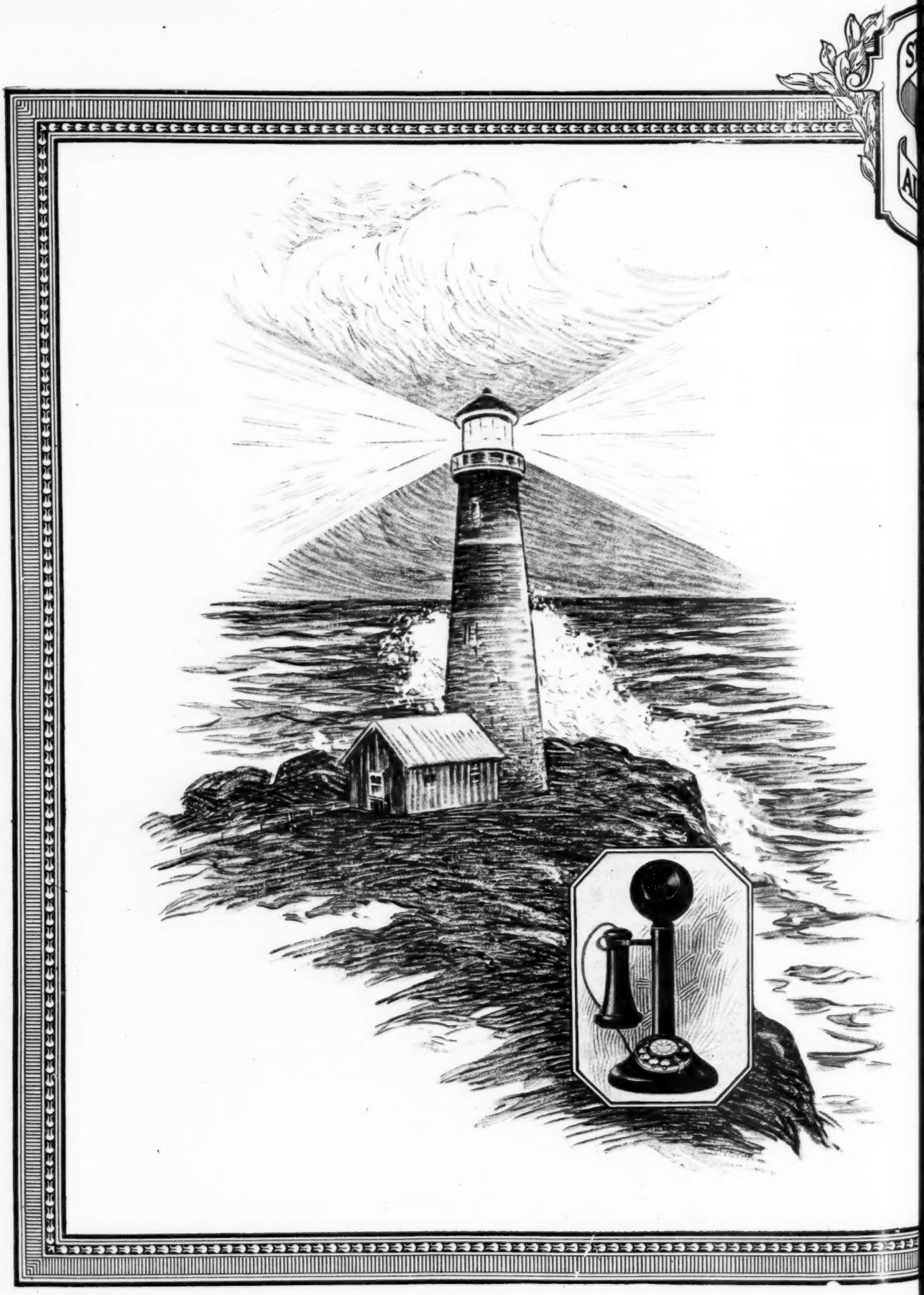
Teamwork.

By Mrs. Allen Chase, *Chief Operator, The Texas Telephone Co., Hillsboro, Tex.*

Nowadays, and everywhere, much is being said about "teamwork," the necessity for teamwork, and the benefits to be gained by using teamwork. The fact has become pretty well established that no business can succeed to its fullest extent without teamwork.

Did you ever chance to notice a team of horses, where one of the team wanted to pull out of the road, or, perhaps, he was balky, or in some way he just did not want to do as he should do?

Just that kind of tactics is what traffic officials are trying to get rid of in our operating forces when they urge us to use teamwork, and more teamwork. It means



)ependable—

DAY or night, fair weather or stormy, the lighthouse continues to send its unfailing warning out to sea. It is so rugged in its construction that it dependably performs its function even under the worst conditions of wind and storm.

Strowger Automatic equipment is also designed and constructed to render unfailing and constant service day or night. Periodic routine tests of equipment, a complete system of automatic supervisory signals, and absolute and instant interchangeability of all switching units, guard against service interference at all times.

Telephone users appreciate service they know to be as dependable as it is rapid and accurate. Strowger Automatic gains public goodwill because it renders this kind of unvarying and unfailing service every hour of the day or night.

Automatic Electric Inc.

Factory and General Offices: **1033 West Van Buren Street**
Chicago, U. S. A.

When writing to Automatic Electric Inc., please mention TELEPHONY.

—rid your force of all balky or cranky or lazy people. This "culling" process may be accomplished in several different ways.

In some few extreme instances, the individuals, who seemingly do not want to do their "teamwork," force you to finally eliminate them; in most cases, however, they can be shown the error of their ways. When they see the right way, and the splendid results to be gained from working the teamwork way, they are then and there sold on the teamwork idea.

Teamwork in the traffic department means that each operator feels some responsibility for all signals, whether on her own switchboard position or on other positions. Every local operator, who is taught teamwork, finds it easy to switch numbers from some other operator's position to her own. She is taught to feel that, when a subscriber signals, it is just as much her duty to answer that subscriber when his number appears on an adjacent position as though it appeared directly in front of her. Uniform local service is not possible unless such teamwork is practiced.

In the long distance branch of the work, teamwork is equally indispensable. Toll operators can, and should, work together in answering line and recording signals, without being frequently prompted to do so by their supervisors. They should supervise closely all inward connections to or through their offices, thereby practicing teamwork with other and distant operators.

Operators and supervisors must act in teamwork. Supervisors and chief operators have a part in teamwork. We are all working together like so many little cogs in one great wheel. We must all work in the same way, in harmony with one another. That's teamwork—the result is service.

Then there must be teamwork between traffic and commercial forces—between traffic and plant, between plant and commercial—if we expect to have harmonious relations with other departments, to the end that all will render to the public a uniformly satisfactory grade of service.

You can not produce results with some employes pulling in opposite directions. They must be willing to all pull together in the same direction all the time, for the benefit of service.

Let's learn more of teamwork! It is so easy to be a teamworker; the cost is small, but the returns are great and well worth striving for. Let's put the hammer on the shelf and begin our teamwork by seeing "the other fellow" as we would have him see us.

CAPTAIN OR CREW

By Miss Anne Barnes,

Traveling Chief Operator, Iowa Independent Telephone Association, Des Moines, Iowa

Sometimes we wonder why we are not getting the results in our work we had hoped for. I wonder if it is not because we just started out with one great big hope, without once stopping to analyze its possibility for us as particular individuals.

Perhaps our hope is to be a captain, an executive, a leader of others—a very worthy hope indeed; but suppose we are so situated that there seems to be no possibility of our being located in an environment where we can do the things we hoped to do. It may be that we have the care—the individual care, which cannot very well be delegated to others—someone dependent upon us.

And so our hope apparently ends in a blind trail, instead of out on a broad highway opening up before us. Why fret?

Whatever the conditions *are*, we must go through with them as they are, not as we want them. And the better we meet conditions, the more we develop. The overcoming of obstacles, no matter what they may be, is the greatest of all developers of character, muscle or brain. That is the way to grow into bigger things—even captains, executives and leaders of others. Maybe, but not always, for

"We can't all be captains; we've got to have a crew. There's something for all of us here. There's big work to do, and there's lesser work, too; the task we must do is the *near*."

So let us stop hoping for the unattainable and take an inventory of our present work.

The fine points of accomplishment in any work are close study, diligent care, constant application, and always trying to improve methods.

It is far better to do the task at hand in this manner than to half-heartedly perform it, because we believe we are created for bigger work.

It sometimes happens that the little work is the foundation for a bigger work. Let us keep our foundation work firm and well-built. Let us remember that there is no need of a captain where there is no crew.

Moral:

If we can't be a pine on the top of the hill,
Be a scrub in the valley, but be
The *best* little scrub by the side of the rill—
Be a *bush* if we *can't* be a *tree*.

Advertising Telephone Toll List Boosts Store's Sales

A department store in Kansas has adopted a unique, highly practical method to keep in touch with its out-of-town customers.

Following an investigation, the store management discovered that not a single toll telephone charge was over 30 cents for towns within a radius of 50 miles, and that many were much lower. Accordingly, the store, in its advertising, has been printing a list of the neighboring towns and the toll charges from each, and has been stressing the advantage of doing business by telephone.

As a result, not only have telephone orders increased remarkably, but the mail business is also steadily growing, for many customers who ordered first by telephone in an emergency, have continued to buy through the mails when time was not a factor.

There's an idea for the commercial department people of other companies. Not only are the stores done a good turn by suggesting this thought to them, but the telephone company gets increased toll revenue.

Crete, Neb., Company Had Good Year in 1925.

At the annual meeting of the Crete (Neb.) Telephone Co., Thomas C. Woods was named on the board of directors in place of R. E. Mattison, deceased. The other members are W. E. Bell, W. L. Lemon, Charles F. Miller, R. F. Ireland and Charles M. Algermissen. The officers elected are: President, R. F. Ireland; secretary, treasurer and manager, B. G. Miller. The company declared an 8 per cent dividend on its common stock and 7 per cent on its preferred stock.

The company serves the city of Crete and the town of Kramer. Gross revenues for 1925 were $30,815, as compared with $30,253 for 1924. Expenses for 1925 were $22,701, or about $300 less than for the previous year. Dividends paid each year totaled $7,259, paid on $47,700 of preferred and $49,000 of common stock. The surplus was increased $855 for the year. The number of stations served increased from 1,169 to 1,196.

Service Car in a Small Exchange

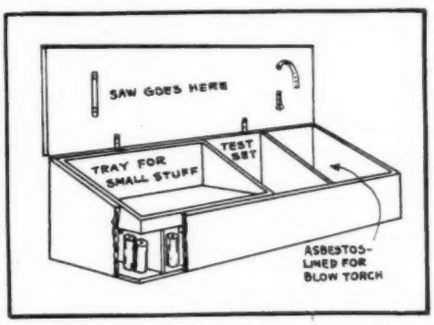
Are You Getting the Maximum of Service from Your Service Car?—Changes in and Additions to the Typical Small Car Used in Maintenance and Installation Work That Give Increased Efficiency in Exchange Work at Small Cost

By L. M. Lamkins,

Manawa Telephone Co., Manawa, Wis.

I wonder if the average small exchange gets the maximum of service from the battered old service car that is so important a member of the crew?

This is a subject on which I have never seen an article published in any trade journal and, as we are rather proud of the results we achieve with ours, perhaps it may be of interest to others to know what we have done to increase the efficiency of the lowly Ford.



Details of Box Placed on Running Board of Service Car.

The typical service car, as I have observed it, is the familiar Ford roadster with a box body on the rear deck. This box usually contains a more or less jumbled assortment of tools, wire, handlines, batteries, bolts and repair parts. Ofttimes the heavier items smash up the more fragile ones, and the thing wanted is generally at the bottom of the pile and hopelessly entangled with the other gear. When it rains or snows, we have a very rare mess, indeed, and very bad for the tools and other paraphernalia.

Such was the condition of our truck two years ago, when we rose up in just indignation and demanded a better condition of ourselves.

Our first concern was to separate the smashers from the smashed. With this end in view, we constructed a long box across the back of the seat and resting on the top edges of the flare boards of the body proper, giving a clearance beneath of the depth of the body.

This box has three compartments. In one of them we keep a supply of through bolts in the various lengths, together with washers, a few pole steps and a couple of spacer bolts. The middle compartment is devoted to insulators, "snowed under" with shavings. We also carry a few pins and wood brackets in this space. The remaining compartment contains spikes, a package of nails, heel bolts, carriage bolts for cross-arm braces, a few large bridle rings, thimbles, clamps of various sizes; also wire grips and a couple of wrenches.

In a box that has a water-shedding cover and fits snugly on the running board on the "blind side," we have compartments for 12 batteries which keep them apart, setting upright, and free from shorts; one compartment for the old reliable test set, and an asbestos-lined one for the blow torch, which also contains a roll of acid core solder, a can of flux and a sheet of emery cloth.

The inside of the cover makes a fine place for the valiant handsaw with the bucksaw teeth that is our right-hand man when it comes to tree trimming and framing poles. The framing chisel also has its place, and is kept there. A tray for small stuff on top of the dry cells' compartment also serves to keep the cells from jouncing around. The lid of the box is hung so that it opens back out of the way and stays open.

In the little space left we carry a few inner tubes and a patching kit, a few shoes and a extra timer. Sparkplugs are kept in a home-made pocket in the door, which also affords accommodation for the "small tools" and the good old "bolt cutters," right ready to hand. By carrying along a few emergency parts for the car we avoid the expensive and exasperating experience of limping in on three cylinders and a flat tire, and save a lot of time besides.

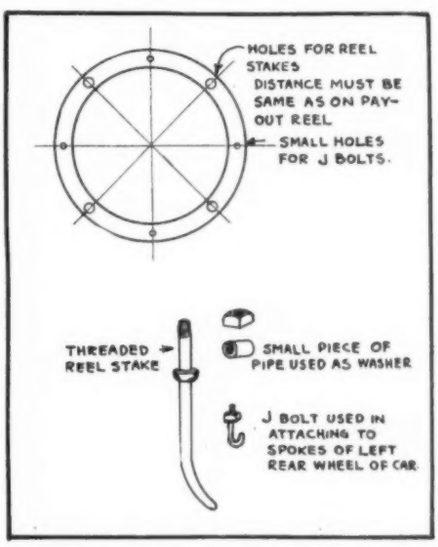
We do not put our top down, and the brackets made to support it in the down position are straight out and then up to form a sort of rack on which we carry all insulated wire used on the job. When we wish to carry a ladder along, we hang it on the right side, one end on this hook and the other end on a bracket made for that purpose fastened to the car body where the windshield joins it. This is not so handy as on the left side, but it balances Henry better, especially when only one man is in the car.

The axe has a holster just inside the car body and is strapped into it. All other tools are kept in a good canvas tool bag, with the best bits protected by screwing the worm into wooden blocks. We have a smaller bag which receives tender consideration as it contains the more delicate repair parts, cords, fuses, sleeves, mouthpieces, a spare transmitter and receiver, an oil can with a screw top for oiling generators, induction coils and the like. This bag always gets the softest berth. This leaves the main body of the car for the heavier articles, such as digging tools, pulling tackle, climbers and belt, and a small coil of No. 12 wire for repairs.

For installations we have a special kit box with a carrying bail. This box is provided with a removable tray that is divided into compartments which contain screws of various sizes, Blake staples, screw eyes, test clips, and the smaller articles used in our installations. This tray has a cover that buttons down and keeps the contents of the tray from "shuffling" from the jolting of the car.

Arresters, house and pole brackets, and so on, go in the bottom of the box and porcelain tubes are fastened to the side of the box, out of harm's way, by running loops of marline let into the side of the box.

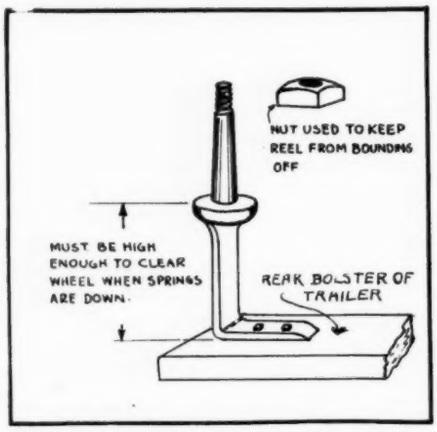
Then we made a canvas cover which we fastened under the rear edge of the long box across the back of the seat and extending back over the main body and buttoning down over the rear. This has flaps that hang over the edge and make it water tight. In fair weather it is rolled up and strapped to the face of the bolt box in a neat roll. The long bolt box has a canvas cover, with a weighted edge that holds it down over the box edge in the strongest wind.


HOLES FOR REEL STAKES DISTANCE MUST BE SAME AS ON PAY-OUT REEL
SMALL HOLES FOR J BOLTS.
THREADED REEL STAKE
SMALL PIECE OF PIPE USED AS WASHER
J BOLT USED IN ATTACHING TO SPOKES OF LEFT REAR WHEEL OF CAR.

Details of Take-Up Reel Operated by the Car Motor.

At this time we were replacing a lot of open wire with cable. We were confronted with the task of reeling up quite a bit of wire, and we passed the job on to "Henry"

in this manner. First, we had a flat hoop made at the blacksmith shop just the size of the payout reels. This we fastened to the spokes of the left rear wheel with J-bolts. Then we threaded the bottoms of a set of reel stakes and, with the aid of short pieces of inch pipe as washers, we bolted these firmly onto the flat hoop, making a takeup reel out of the wheel. Then we jacked up the wheel, slid a stout sawhorse under the axle, hooked on our wire,



Stake of Pay-Out Reel Which Also Acts as Regular Stake on Trailer in Carrying Poles.

started the motor, and in came the wire.

In working this wonderful little work and time-saver, the operator stands on the left side of the car and reaches in with his left hand and lets the clutch gently into high. If he has any machine sense at all, he has absolute control, as with the one lever he can throw out the clutch and apply the brake. One can tell by the action of the wire, and the pull of the motor, whether the wire is running clear, and with one man to follow the wire in and look out for snags, see that traffic does not get mixed up with the end, etc., and astonishing amount of wire can be reeled up in an hour. I have always used a thimble tied into the end of a handline to feed the wire evenly onto the reel, but a lever could easily be rigged on the back of the car body that would do this work more easily.

By my method the car is set so that the wire tends to pull off the reel and then, by running the handline around the box body and back over the top, one can manage the wire by pulling or slacking the handline. Out in the country where conditions permit, we just attach the wire to the reel and drive off with it. This saves the work of jacking up the car and is advisable when only one or two wires are to be reeled up.

The last wire we reeled up worked in very nicely with this system as it was late and we were about a half mile from town. We had a single wire, half a mile long, to reel up, so we hooked it on and simply drove home with it. The end came flickering in just as we reached the city limits and we just gave it a couple of turns around a reel stake and kept on going. Once in a while the telephone man gets a lucky break.

Last but not least comes our combination trailer. This is made of the rear wheels and axle of a Woods' electric with solid rubber tires and three springs under the rear bolster. Two of these springs are of the elliptical type and are mounted the same as on the ordinary trailer, on each end of the axle. The third spring is of the semi-elliptical type and connects the two front ends of the other springs, the middle of the spring being bolted down to the reach, giving more vertical resiliency and at the same time making it more rigid horizontally.

The reach is of white oak, six inches wide and two inches thick. The front bolster is bolted crosswise on the reach at a point about two feet clear of the car body to allow room to turn the car when trailing a load. This bolster has one inch iron stakes standing up about a foot and securely bolted down. The rear bolster is of three-inch ash and from it a stout iron strap runs to a point about four feet out on the reach to act as a further reinforcement.

The purpose of all this rugged construction of the rear bolster is to make the trailer stand up when used as a pole-puller. We have used this trailer to pull poles 30 and 35 feet long, and performed the task with comparative ease. Of course, we run across an occasional stubborn one with a large mushroom butt that defies our efforts and has to be dug out, but ninety out of a hundred succumb readily.

We run our trailer up to the pole so that the middle of the bolster rests against it, elevate the reach, pass a short chain around the pole up over the bolster and down around the reach, pull down the reach and the pole comes out of the ground about a foot. We have to put blocks under the springs to make them rigid.

In the summer of 1924 we reset all the good 25-foot poles in an old bracket lead with the aid of this trailer. We would pull a pole almost out of the ground and saw it off just above the ground rot. Then one man would grab the pole and hold it clear while the other fellow wheeled the trailer, with the stub still attached, clear of the hole. Then the pole was dropped into the old hole and tamped firmly in place. The average time consumed in the operation was from 10 to 15 minutes. Some of the poles had a lean to them in the plane of the lead which made it necessary to loosen the ties in order to use the same hole, otherwise we would have made a better average. At that, it was a considerable saving of time over the old method, and as for the saving in labor—oh boy!

This type of trailer is just the thing for the small exchange that uses mostly 20 and 25-foot poles in its rural construction. A 20-foot pole balances nicely over the rear bolster. We find our trailer invaluable in replacing poles. We can throw on a couple of poles, rush them out to the scene of trouble, pull the stubs, set the new poles and have the old ones back in the pole yard in half the time it would take to haul the poles out to the job with a team. As for the practice of dragging poles behind the car, that does the car, the pole and the road bed about an equal amount of good, and is a slow process at that.

I nearly forgot two very convenient uses to which we put this versatile old trailer. For one, we have made a light rack for it about 7 feet by 12 feet in size with 3-foot sides, which we use when trimming trees to carry away the litter. This helps us to keep in the good graces of both the farmers and the highway commission. so we clean up as we go. I'll admit that we stole this idea from the Bell, but I don't think they are going to resent it. I mention it as I have not seen them in use in any Independent exchange around here.

The other function of the combination trailer is to act as a pay-out reel. The two rear bolster stakes are made out of an old buggy axle with the stubs up to form spindles for two payout reels. They are high enough to clear the wheels over quite a bump. The burrs are screwed back on so that the reels cannot fly off when the car is in motion. We thus have a double reel that can be wheeled into position easily, positively will not bind, and is up where the tender can regulate it without breaking his back.

Where conditions permit, we fasten the ends of the coils and drive off with the reels. A man can ride the trailer to oversee the reels, but I have run out half a mile of wire alone in ten minutes without having to stop once to untangle a snarl. Of course, in Wisconsin it is not so usual to find a place where no trees or other obstacles interfere but, nevertheless, we do find such cases and it is a good thing to be able to take advantage of the opportunity when it comes.

In spite of all this work we have loaded on old "Henry," he has passed his third birthday and is still going strong. A year ago, in token of his faithful services, we gave him a neat coat of battleship gray and blazoned our name proudly on his sides.

This serves several purposes: It lets the community know that we take pride in what we do and are not ashamed of who we are, and it identifies the car so that any of our customers who want to report trouble, or have a word with the troubleman, can flag him and get results on the spot. Often this saves going over the same route twice.

The total cost of the equipment described was somewhere in the neighborhood of $35 and it has paid for itself many times since it has been in use.

Construction and Expansion Plans

Letters from Telephone Companies in All Parts of the Country, Operating 1,000 Telephones or More, Indicate that the Ensuing Year Will Be One of Considerable Activity in the Improvement and Expansion of Facilities

Far-sighted telephone managers are at this time mapping out their construction programs for the ensuing year, in order they may have the necessary material and equipment on the ground for commencing work as soon as weather conditions are favorable. Many of them have already determined what their requirements will be.

The needs of the telephone companies whose construction and expansion plans are set forth in brief on these pages, include a big variety of supplies and equipment, from line construction material to switchboard equipment and motor trucks. The contemplated expenditures range from several thousand dollars to more than a hundred thousand dollars for each individual company.

Some of the work to be undertaken this year will, naturally, be a continuation of programs commenced last year or earlier, extensive construction or rebuilding programs requiring several years for completion in many cases.

The total expenditures of the West Texas Telephone Co., of Brownwood, Texas, for construction and reconstruction work during the ensuing year will approximate $60,000, accordingly to a preliminary estimate made by F. W. Greber, vice-president and general manager.

The company's requirements will include a carload of lead covered cable of various sizes measuring a total of 21,000 ft., a carload of No. 12 N. B. S. gage copper wire and approximately 26,000 ft. of underground conduit to be laid in approximately 5,000 ft. of trench. Some 2,000 poles will also be needed, 1,000 of them 16 ft. and 18 ft. native cedar poles for rural lines and 1,000 creosoted pine poles of various sizes, most of them 6 in. 18 ft. poles for toll lines.

Mr. Greber states that his company expects to gain about 450 stations in 1926, 300 common battery and 150 magneto. Extensions to central office equipment are not expected to exceed $2,000, he states.

The Columbia (Mo.) Telephone Co. contemplates extending its underground plant by adding one mile of four-way duct and the same amount of 600-pr. lead covered cable. The company also expects to complete the task of moving back its toll lead on route No. 7, Columbia to Jefferson City, a distance of 32 miles, requiring approximately 1,000 new poles ranging in size from 25 ft to 45 ft. Poles for the greater portion of the job are now on the ground and about 15 miles of the work has already been completed.

This work also calls for the changing of one metallic No. 9 iron circuit to No. 10 B. & S. copper wire with the addition of one No. 10 B. & S. copper circuit, giving the company four toll circuits of No. 10 B. & S. gage copper wire between Columbia and Jefferson City. This will require approximately 2,800 lbs. of new No. 10 B. & S. bare copper, 50 per cent of which is now on the grounds.

All of this work is under way writes E. F. Carter, manager of the company, with the exception of the underground extension which will be held up until the return in February, of President Polk from a trip to Europe.

The Company and the Individual.

A corporation may spread itself over the whole world, and may employ a hundred thousand men; but the average person will usually form his judgment of it through his contact with one individual. If this person is rude or inefficient, it will take a lot of kindness and efficiency to overcome the bad impression.

Every member of an organization, who in any capacity comes in contact with the public, is a salesman, and the impression he makes is an advertisement good or bad.—Sharon Steel Hoop Co.

The Crosbyton (Texas) Telephone Co., of which E. H. Hendricks is general manager, expects to build one or two new exchanges this year, equipping them with switchboards of 100-line and 150-line capacity.

Considerable pole line construction work is anticipated, requiring some five carloads of poles, butt-treated white cedar and "black diamonds," a carload or more of No. 12 hard drawn, bare copper wire, one carload of either fir or creosoted crossarms, 10,000 glass insulators and a corresponding number of pins. The company will also be in the market for arresters and main frames, terminal cans and some cable.

The Peoples Mutual Telephone Co., Hillsboro, Ill., expects to do considerable construction work this year, in addition to its regular maintenance work.

For replacement work 755 white cedar poles will be required (600 6-in. 20 ft., 100 6-in. 25 ft., 30 8-in. 30 ft., 15 8-in. 35 ft., 10 8-in. 40 ft.) 150 rolls of No. 12 B. B. iron wire, various crossarms, brackets, hardware and insulators.

New construction work will require 2,000 ft. of 100-pr. lead covered cable, 1,000 ft. of 50-pr. lead covered cable, 1,015 white cedar poles (800 6-in. 20 ft., 150 6-in. 25 ft., 50 8-in. 30 ft. and 16 8-in. 40 ft.) 100 rolls of No. 12 B. B. iron wire, 50 rolls of copper toll line wire, the necessary crossarms, brackets, hardware and insulators.

In addition to this line construction material the company will be in the market for two 200-line switchboards and two motor trucks.

The Pomona Valley Telephone & Telegraph Union, Pomona, Calif., will require the following materials for this year's construction work, according to General Manager Carl H. Lorbeer: 350 telephones, five carloads of poles (one of 30-ft., three of 35-ft., and one of 40-ft poles) 15,000 ft. of 3/8-in. steel messenger strand, 8,000 ft. of 50-pr. cable, 4,000 ft. of 100-pr. cable, 3,000 ft. of 200-pr. cable, 150,000 ft. of drop wire and 25,000 ft. of Copperweld wire.

The Celina & Mercer County Telephone Co., Celina, Ohio, of which Paul R. Christy is manager, expects to add during the ensuing year about 5,000 ft. of 25-pr. cable. Most of the company's construction work this year will be in replacing about 50 miles of iron wire.

The Union Telephone Co., Owosso, Mich., intends to build and rebuild about 64 miles of long distance toll lines on which 20-ft. to 35-ft. type A and B poles will be used. In this construction program about 80,000 lbs. of No. 10 copper wire will be required as well as the necessary crossarms, etc.

The company anticipates the rebuilding of several exchanges, the details on which are not at present time available. In general, around $125,000 will be expended on construction work, both inside and outside.

The Boyer Valley Telephone Co., Woodbine, Iowa, of which M. A. Reed is manager, reports that its plant is in good repair at present and that unless a sleet-storm is experienced, only a small amount of repairs will be necessary. Its requirements will include a carload of poles, mostly of 20 ft. and 25 ft.5 in. and 6 in., although some 30-ft. 6 in poles will probably be needed and 20,000 ft. of rubber covered drop wire.

The Mansfield (Ohio) Telephone Co. will probably complete the remodeling of its building this year. The rear was remodeled and made fireproof before the installation of the company's new automatic switchboard. This year the company anticipates remodeling the front of the building.

Additional central office equipment will probably be purchased to take care of the growth in subscriber stations. About 1,200 cable pairs will be added to the present facilities by placing more underground cable in conduits now available, together with such aerial laterals and leads as are found necessary.

The Farmers New Era Telephone Co., of Hebron, Ill., reports that its plants are in first class shape and only a nominal amount of construction work will be done this year. The company has just completed the erection of a new general office and exchange building in Hebron, according to General Manager C. C. Hunt.

The Blue Earth Valley Telephone Co., Blue Earth, Minn., anticipates spending between $3,500 and 4,000 on underground cable construction during the ensuing year, according to Manager W. A. Eckles.

The Keck Telephone Co., Princeville, Ill., will need some 300 25-ft. 5-in. poles and a 300-pr. cable office terminal.

The Stronghurst (Ill.) Telephone Co., expects to spend between $1,000 and $2,000 on outside construction work in 1926 and its requirements will include a carload of poles or two.

The Alexandria (Minn.) Telephone Co. is in excellent shape and no considerable improvements or extensions are contemplated this year, according to Manager E. P. Wright. The company does contemplate adding a switchboard section and the matter is in the hands of the manufacturers for submitting plans and costs.

President L. C. Griffitts of the Southern Indiana Telephone & Telegraph Co., Seymour, Ind., writes that his company proposes to spend $100,000 for extensions and improvements during the year 1925. Most of this will consist in cable construction. Although two or three of the company's plants will probably be rebuilt this year, the company's major effort will be concentrated on the development of its toll lines.

The Jasper County Telephone Co., Rensselaer, Ind., is planning to continue its underground construction program commenced in 1925. Last year a comprehensive program was undertaken in the laying of underground conduit and cable. In this work the company used several thousand feet of creosoted wood conduit, built a number of large concrete manholes, making brick and steel tops with good heavy cast iron manhole covers. Some 8,000 ft. of cable have been pulled in and are ready to be connected up. This, Manager W. L. Bott states, will be the first task upon the opening of spring.

The company's outside plant in the city of Rensselaer is now about 80 per cent underground, and by the end of 1926 it is hoped that 95 per cent will be underground. The company anticipates placing at least a mile of rural cable underground this year and it may construct some copper toll lines. "This," Mr. Bott writes, "will, of course, depend on our hearing the birds singing in the spring without a sleet."

General Manager E. G. Miller of the Warren & Niles Telephone Co., Warren, Ohio, writes that the plans of his company for 1926, will require an outlay of from $60,000 to $75,000 to be distributed approximately as follows: Underground conduit, $12,500; underground cables, $18,500; station equipment, $9,500; private branch exchange switchboards, $3,500; increase of 300 lines to main exchange switchboard, $9,000; pole lines, $2,500; aerial wire, $6,500, and miscellaneous supplies, $3,500.

In addition to poles on hand, the company will probably need 200 6-in. 25-ft. creosote treated cedar poles, according to Mr. Miller.

Architect's Drawing of New Building to be Erected by the Peninsular Telephone Co. in Tampa, Fla.

W. S. Clay, general manager of the Hutchinson Telephone Co., Hutchinson, Minn., in telling of his construction plans for the ensuing year, writes in his usual jovial way:

"We seem destined not to be able to enjoy that rest and repose that is due us, as the plant seems to keep right on growing in spite of all we can do. We are now making preparations to add a new section to our switchboard and the outside plant is getting inadequate in spots. It is a sure substantial growth and we must take care of it.

We will add the usual number of rural telephones and build a few more lines to save our scalps. We buy a car or so of poles every once in a while just as Uncle Dan used to buy a jug of bitters when he was in town for the reason that we are apt to need them most any time and we can't go to town every day."

Peninsular Company Erecting New Telephone Building in Tampa, Fla.

Final detailed plans for a 12-story extension adjoining its present main exchange building have been approved by the Peninsular Telephone Co. according to announcement by W. C. Brorein, president and general manager.

The site of the new structure has been owned by the telephone company for some time and was cleared a few months ago in preparation for building. Soundings for foundations have already been taken, and excavation work will start in the immediate future.

The new building will have a frontage of 50 feet on the Morgan street side of the present telephone building at Zack and Morgan streets and will extend back 100 feet to the present building line. It will be entirely utilitarian in character, and will be used to house great quantities of new telephone equipment, and the growing administrative forces of the Peninsular Telephone Co., whose system in south Florida has doubled in the past five years. The building will be of steel and reinforced concrete construction, and the exterior will be of buff brick with limestone trimming. The cost, exclusive of the site, will be more than $400,000.

In design, the exterior of the first four floors will match those of the present building, while inside these floors will be made continuous. The building will be as fireproof as modern science can make it. It will have a battery of high-speed elevators and will be equipped with all modern conveniences and devices, including a cafeteria occupying most of the sixth floor, for telephone workers.

When the new structure is complete, the main entrance to the telephone building will be moved from 521 Zack street to the Morgan street side, where there will be a suitable lobby.

There will be one basement in the new building to contain a heating plant and an emergency power plant to supply the storage batteries which operate the local telephone system in the case the regular current supply should fail.

Most of the first floor will be occupied by the local telephone commercial offices. The second floor will be utilized entirely by the traffic department, for enlarged long distance operating rooms and quarters for the operating forces. The third floor will contain additional automatic switching equipment and an enlarged terminal room.

Auditing and accounting departments will occupy the fourth floor, while most of the fifth floor will be given over to long distance testing apparatus and terminal rooms, and also the repeater stations for leased wire press service. The sixth floor will be occupied by the cafeteria and assembly room for telephone employes. The seventh floor will be used for the company's general file rooms, stationery supplies, etc.

The commercial engineering and rate departments will occupy the eighth floor, the drafting department the ninth floor, and the outside plant engineering department the tenth floor. The eleventh floor is assigned to the equipment and equipment

engineering department, while the top floor will contain the president's office and the directors' room.

The present four-story telephone building was completed in the latter part of 1914 and occupied in the early part of 1915. As originally planned, it would have been a three-story building, but for the fact that Mr. Brorein, having faith in Tampa's future, ordered a fourth story included in the plans. At that time officers of the company believed it would be adquate to care for Tampa's telephone needs for about 20 years.

In scarcely half that time, however, the building has been outgrown, and for nearly a year it has not been able to comfortably house the company's local and administrative forces and the central switching exchanges serving the business section.

Candle, Alaska, Boasts Northernmost Exchange of U. S.

The farthest telephone north in the territory belonging to the United States is way up in Alaska, some 100 miles above Kotzebue Sound on the Kobuk river. It belongs to the farthest north telephone exchange at Candle, Alaska, which connects with Nome, Deering, Haysock and Keewalik.

Owing to the severity of the Arctic winters, the Kobuk river is closed from October 1 to June 1, and communication, except by dog team, is possible only by telephone. During the summer months a boat on the river makes regular trips, but without the telephone this section would have little contact with the outside world in winter.

Telephone Installations and Applications In Sydney, Australia.

During October, the postal department at Sydney, Australia, installed 5,148 telephones, leaving a balance of 8,134 applications outstanding.

On an average, 5,200 applications are received each month, according to information from U. S. Trade Commissioner E. G. Babbitt, of Sydney. The postal department is able to slightly exceed this number with installations, so that, but for some areas where there is still congestion, it is closely approaching normal conditions.

Clyde (Kans.) Telephone Co. Changes Ownership.

A deal was closed recently whereby the Central Kansas Telephone Co. has purchased the Clyde Telephone Co., of Clyde, Kans., for a consideration of $32,000. F. D. Oelkers will be local manager of the Clyde properties.

Independent Exchange at Hinton, Okla., Changes Ownership.

Frank W. Hukill, for years cashier of the First National Bank, Hinton, Okla., has purchased the Hinton telephone exchange from A. G. Carlile. The consideration is reported to have been $15,000.

Lincoln (Neb.) Company's Report

Efficient Operation of the Lincoln Telephone & Telegraph Co., Lincoln, Neb., During 1925 Shown in Reports Presented at Recent Annual Meeting—Average Revenues One Cent a Call Shown—High Service Standard Maintained

Two changes in the directorate of the Lincoln Telephone & Telegraph Co., Lincoln, Neb., were made by the stockholders at their annual meeting on January 19. Thomas C. Woods, son of President Frank H. Woods, was substituted temporarily for L. B. Stiner of Hastings, and John H. Agee, the new general manager, took the place of the late R. E. Mattison. Resolutions of appreciation of Mr. Mattison's services and a tribute to the generosity of spirit, his genius for comradeship and his character and ability were adopted by a rising vote.

The following directors were elected: J. M. Bell and C. N. Beaver, York; Chris Klem, Beaver Crossing; G. E. Codington, Auburn; L. E. Hurtz, Omaha, and S. H. Burnham, Charles Stuart, Joseph Grainger, J. H. Agee, Frank H. Woods, Thomas C. Woods, George J. Woods and Mark W. Woods, Lincoln.

Officers were elected as follows: President, Frank H. Woods; vice-presidents, S. H. Burnham and Thomas C. Woods; secretary-treasurer, C. P. Russell; general manager, John H. Agee; auditor, W. L. Lemon; commercial superintendent, W. E. Bell; traffic superintendent, R. S. Brewster; plant superintendent, M. T. Caster, and chief engineer, H. H. Wheeler, Jr.

The report of the directors shows that the company has $11,053,000 assets, made up of physical property, $10,064,000; investments, $91,000; material and snpplies, $255,000; cash and deposits, $270,000, and current receivables, $372,000.

The company has outstanding $5,767,725 of capital stock, over three million of which is common. The $3,500,000 of special preferred stock issued to the Northwestern Bell in payment of properties purchased in 1912 was reduced during the year to two millions, by the use of cash on hand. Of this amount $300,000 has since been sold to customers in the territory served. This financing was reflected in the reduction of dividends paid during the year from $471,000 to $429,000. The company has continued to pay 8 per cent on the common and 6 per cent on its preferred stock.

The amount of outstanding 5 per cent bonds was increased half a million to two millions during the year. The company has no bills payable, a depreciation reserve of $2,070,000 and a surplus of $793,618.

SUMMARY OF EARNINGS AND EXPENSES.

Earnings:	
Exchange revenue	$1,842,536
Toll revenue	755,075
Miscellaneous operating revenue	46,622
Total telephone revenue	$2,644,233
Expenses:	
Traffic	$ 399,128
Commercial	175,814
General	118,204
Other expenses	42,386
Current maintenance	500,877
Depreciation	583,940
Taxes	190,500
Total telephone expenses	$2,010,849
Net telephone earnings	$ 633,384
Sundry net earnings	44,616
Total net earnings	$ 678.000
Deduct interest	142,665
Balance net profits	$ 535,335
Dividends, preferred and common	429,327
Balance for surplus	$ 106,008

President Wood's Report.

In his annual report, President F. H. Woods called attention to the fact that the company had earned all its requirements for operating expenses, interest on its bonds, dividends on its stock and a balance to surplus of $106,008. On this point he said:

"A utility company must do more than meet its requirements for these purposes. In addition to paying fair, reasonable wages to the men and women engaged in rendering the service, and in addition to paying fair, reasonable wages for the capital making the service possible, there must be a margin.

The purpose of this margin is not for enlarging the business. This surplus is necessary to carry the company through periods of depression, and to provide against contingencies, which by the exercise of the utmost care it is not humanly possible to forecast. It is essential in maintaining a financial standing that will enable the company to obtain, on favorable terms, the additional capital which an ever-expanding industry requires. It makes certain the service of the future, and insures the company's ability to meet the continual

demand which the public creates for more and better service."

Earnings for the year increased 4.15 per cent over 1924, while expenses increased 4.96 per cent. The relatively greater increase of expenses was explained as due principally to the greater maintenance requirements of the plants. These have been faithfully met, leaving the physical property in generally better condition than ever before. The company's stock earned dividends at the average rate of 7.04 per cent. The redistribution of the re-purchased stock is carrying out the company's policy toward the wider distribution of its ownership among the individual users of its service.

Mr. Woods said that the service rendered by the company has not only been given with entire public satisfaction, but service in the important exchanges of the Lincoln main office and Hastings has been substantially improved. This high service standard has been maintained with no increase in service charges and notwithstanding continued high cost levels of materials and labor. There were originated on the 120 exchanges of the company during the year 162,000,000 messages, for which the revenue shows an average of a cent a call, an unusually low figure.

The total physical property investment increased only $62,622 during the year, due to the heavy reductions of $907,652. Additions totaled $970,274. The principal additions were in the nature of normal plant and equipment replacements and additions, while the principal reductions were consequent plant and equipment displacements and the sale of the exchange properties at Red Cloud and Hampton.

The most significant item of plant extension was the erection at Lincoln of a modern warehouse and garage building. Material warehousing, repair and distribution, formerly carried on at widely-separated points, is now centralized with economical advantage.

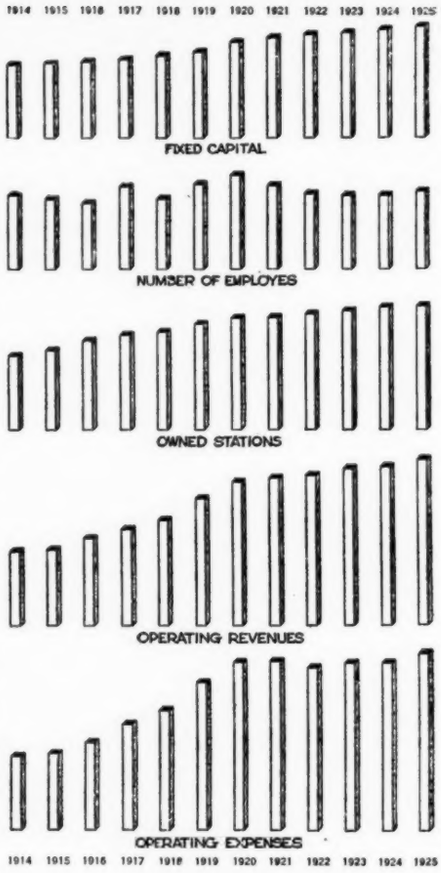


Chart Showing Growth of Lincoln Company Since 1914 Illustrates Its Economical and Efficient Management.

The 1926 construction program contemplates a gross expenditure of $682,000. A large part of this is for replacements for which the depreciation reserve will be charged $325,000. The remainder covers the anticipated requirements for additional service, and the added cost of replacing facilities over the original cost at lower price levels of those displaced.

For the purpose of financing this program and to further carry out the plan of customer ownership, the company is offering its special preferred shares through its employes to users of its service in the operating area.

Mr. Woods said that the company continues to fill its place in the national telephone system. Its relations with the American Telephone & Telegraph Co., Independent telephone companies and the Western Electric Co. enable it to offer universal service, to keep abreast of modern scientific developments and to economically acquire its requisite methods and materials. In closing, he paid this tribute to the late Mr. Mattison:

"In December the company suffered the loss, by death, of R. E. Mattison. Mr. Mattison served the company from 1912 until 1922 as commercial superintendent and subsequently as general manager.

His personal qualifications as an executive and a builder of organization morale and public good will, accompanied by untiring energy and devotion, have contributed in exceedingly large measure to the company's present position of strength. His character and ability, which were so directly valuable to this company, served as an inspiration to an unusually wide acquaintance in the whole telephone field."

	1922.	1923.	1924.	1925.
Earnings:				
Exchange revenue	$1,688,694	$1,740,148	$1,793,011	$1,842,536
Toll revenue	686,259	730,780	702,753	755,075
Miscellaneous operating revenues	42,666	41,652	43,164	46,622
Total telephone revenue	$2,417,619	$2,512,580	$2,538,928	$2,644,233
Expenses:				
Operation	$ 711,145	$ 694,738	$ 708,282	$ 735,532
Current maintenance	433,008	475,123	460,085	500,877
Depreciation	540,906	555,313	566,368	583,940
Taxes	163,000	175,500	181,000	190,500
Total telephone expenses	$1,848,059	$1,900,674	$1,915,735	$2,010,849
Net telephone earnings	$ 569,560	$ 611,906	$ 623,193	$ 633,384
Sundry net earnings	26,030	43,841	62,581	44,616
Total net earnings	$ 595,590	$ 655,747	$ 685,774	$ 678,000
Deduct interest	111,369	113,850	116,648	142,665
Balance net profits	$ 484,221	$ 541,897	$ 569,126	$ 535,335
Dividends (preferred and com.)	411,454	469,391	471,990	429,327
Balance for surplus	$ 72,767	$ 72,506	$ 97,136	$ 106,008

Comparative Summary of Earnings and Expenses of the Lincoln Telephone & Telegraph Co., Lincoln, Neb.

Radio Broadcasting From Harbor Bed at Sydney, Australia.

A novelty, so far as Australia is concerned, writes U. S. Assistant Trade Commissioner Julian B. Foster, of Sydney, was the broadcasting of the experiences of a couple of divers on the bed of Middle Harbor, Sydney, 70 feet under water. One of the divers was a professional diver, who has done stretches of seven hours at a time under water, but the other was a member of the Royal Society who took the dive in the interests of scientific knowledge.

A description of the dress of the divers was broadcasted prior to their descent, and showed that each of them was carrying 142 pounds of weight. In addition, Diver Jack, who was in charge of the expedition, carried a knife and a spear in case of an attack by sharks.

The matter broadcasted was necessarily brief, Diver Jack explaining the work done by divers in laying the sewer pipes across the harbor bed for the public works department, at which work he has been engaged for a considerable time. Mr. Friend, the "amateur" diver, contented himself with broadcasting the scene on the ocean bed.

The reception was remarkably clear to listeners-in on both valve and crystal sets. Favorable comment has been received from all parts of the city by station 2 FC (Farmer's Ltd) which was responsible for the broadcasting.

Personal Notes From the Field

John W. Morrison, of Rochester, N. Y., chief engineer of the Rochester Telephone Corp., is an extremely busy, as well as a very modest, man—and that is why "TELEPHONY" has not previously been able to tell about his life history. Some months ago W. J. O'Hea, editor of the Rochester Telephone Bulletin, the employes' magazine, had a long conversation with him and published the results in the Bulletin, so we at last have the facts about "J. W.'s" career.

He was born in St. Louis, Mo., September 26, 1881, and attended the public schools there, and also the St. Louis Manual Training School. The Southwest then attracted him but after two years in Texas, he returned to St. Louis to work in the drafting department of the Union Electric Light & Power Co. Later Mr. Morrison became inspector of construction work and soon found himself in the office of the vice-president and general manager. Following this he spent one year as assistant purchasing agent with the Wesco Supply Co., a large distributor of electrical supplies in St. Louis.

Having a natural inclination towards telephone work, he satisfied that desire by entering the employ of the Kinloch Long Distance Telephone Co. in St. Louis in 1904.

John W. Morrison, Chief Engineer of the Rochester Telephone Corp., Rochester, N. Y., Has Been Affiliated With That Company and Its Predecessors Nearly 20 Years.

In 1906 Mr. Morrison went to Rochester about the time the United States Independent Telephone Co. and the Independent Telephone Securities Co. were in difficulties. To use his own language: "When the smoke cleared away, I had a job with the Rochester Telephone Co."

Mr. Morrison's experience with that company covered practically every branch of the telephone business. While he never had any specific title assigned to him, he did a lot of work and studied a lot more. During his service with the Rochester Telephone Co. he had complete charge of the building and equipment of the Glenwood and the Park central offices, and laid the plans for the reconstruction of the outside plant.

In 1920, when the plans for consolidating the properties of the Rochester Telephone Co. and the New York Telephone Co. in Rochester and vicinity were being formulated, he was appointed chairman of the consolidation committee and played a very prominent part not only in the preparation of detailed plans to bring the consolidation about, but in the execution thereof. On August 1, 1921, when the two properties were consolidated, Mr. Morrison was appointed chief engineer of the new corporation.

Some idea of the importance of the work handled under his supervision since that time may be gained from the fact that from August 1, 1921, to December 31, 1924, the Rochester Telephone Corp. spent for net additions to plant approximately four million dollars, covering all phases of telephone construction work. This included the enlarging of the Genesee and Glenwood central office buildings and switchboards, and enlarging the Main central office switchboard, plans for the new Culver central office building and switchboard and the plant headquarters building, together with many other major projects too numerous to mention.

In connection with these projects, Mr. Morrison made a complete fundamental development plan including an aerial photographic survey of the city of Rochester, followed by a commercial survey. As a result of the information gained therefrom, he has planned for the telephonic development of Rochester to the year 1940. He is regarded as a student of engineering and is an active member of the American Institute of Electrical Engineers. His interest in the work of this society is evidenced by the number of committees on which he has served. They are as follows: Telephony and telegraphy, Bureau of Standards sectional committee, electrical practice-safety code and the American Engineering Standards committee on poles. He is also a past chairman and secretary of the Rochester section of the A. I. E. E.

When Mr. Morrison was asked as to what his hobbies are, he replied, "I do not play golf, bowl or shoot pool, but have been known to play bridge occasionally. My hobbies this past year were trying to grow a lawn around my new home and fussing with my radio receiving set."

Well Clay Completed His 26th Year as Manager of Hutchinson (Minn.) Telephone Co. Last Week—As the Cartoonist Pictures Him.

Well Clay, manager of the Hutchinson Telephone Co., Hutchinson, Minn., celebrated the 26th anniversary of the day on which he assumed charge of the Hutchinson exchange, on Tuesday of last week, January 19. In a recent letter to TELEPHONY he writes that he has signed every check issued by the company in that time, and every one of them was honored. On this notable day the company also held its annual meeting and paid its usual dividend of 8 per cent, having paid an average return of 7 per cent in its entire history.

Mr. Clay is well known and much loved by TELEPHONY'S readers for his unique contributions published under the title "Sundry Snapshots Along the Trail." His articles are unique in several respects, one outstanding one being that they are always prefaced by a bit of verse of his own composition. He says he is unable to express his thoughts in prose until he has first written some stanzas of poetry—and much good philosophy and common sense is found in both.

January 19 is a memorable day for Mr. Clay for another reason; on that day he also celebrated his 56th birthday anniversary. He was born in Oronoco, Minn., where he attended the public schools, learned the printer's trade and published a

newspaper for six years. A new long distance line having accidentally terminated at his office, through lack of poles to build farther, he entered the telephone business.

In 1899, he and his associates organized the Hutchinson Telephone Co. and he has served as manager ever since. At the present time the company operates 558 magneto and 840 common battery stations and is in good financial condition, as previously indicated.

Mr. Clay has been a prominent figure in state association work, having aided in the organization of several state associations. He served as secretary for two years in the early days, later as vice-president and was for many years a member of the board of directors. He was present at the convention of the Minnesota Telephone Association held this week in Minneapolis and says he has never missed a state association meeting.

The busy life of a telephone man, however, has not been sufficient to keep Mr. Clay occupied. For eight years he served as judge of the local courts, for many years he served as secretary of the school board, for several terms he was mayor of Hutchinson and he is at the present time general manager of the Hutchinson Community Hospital Association. He is a Mason and an Odd Fellow.

Roger Farnsworth will succeed his father, the late D. J. Farnsworth as manager of the Citizens Telephone Co., of Waterville, Ohio.

With the Manufacturers and Jobbers

Monarch Combination Magneto and Common Battery Board.

The Monarch Telephone Mfg. Co., of Chicago, recently developed a new combination magneto and common battery switchboard. The two illustrations on this page show it in one case as a magneto board and in the other as a common battery board.

The magneto board has an ultimate capacity of 320 lines; and when converted to common battery, the board has an ultimate capacity of 400 common battery and 120 magneto lines. This magneto board is one of the new type Monarch switchboards having lamp supervision and new style keyshelf equipment.

When converted to common battery, it has all the desirable features required for the size exchange this board is intended to serve. The big advantage of this Monarch combination switchboard, it is stated, is that the magneto board does not have to be rebuilt in any way for this conversion. At the time the magneto board is built, space is provided and arrangements are made for the additional equipment required for the change to common battery.

In converting this board from magneto to common battery service, the keyshelf and all permanent wiring remain the same. The lamp supervisory cord circuits are made universal by simply adding two relays on mountings already provided on the relay gates in the rear of the cabinet. The drops and jacks are replaced with lamps and jacks, for local lines, which are mounted with fasteners already provided for this purpose. Line cables and relay bays specially made for this conversion are furnished by the Monarch company at the time the change is made.

The object of this new Monarch combination switchboard is to provide a means for easily changing service from magneto to common battery in the quickest and most economical way at any time during the life of the board.

It is stated that this combination board can be installed at an initial cost no greater than that of ordinary magneto equipment. In addition, if it becomes necessary in five or ten years' time to convert the board to common battery, the total investment, including the cost of conversion, will be no greater than if common battery equipment had been installed in the first place.

The Monarch company claims that with this Monarch combination magneto and common battery switchboard, operating companies have a most satisfactory method of keeping pace with the growth of their cities for the full life time of the board.

Contract Placed for Manchester, England, New Building.

Two hundred men will be provided with a full year's work in manufacturing the 4,000 tons of steel required for the new main telephone exchange in Manchester, England.

The building, for which the contract has just been placed with a local firm, is being erected in view of the projected switching over of Manchester's telephone service from the manual to the automatic system, and will take three years to complete. It will occupy a floor space of six

The Monarch Combination Magneto and Common Battery Switchboard—View to Left Shows it as a Magneto Board with a Capacity of 320 Lines; the Other View Shows it as a Common Battery Board with a Capacity of 400 Common Battery and 120 Magneto Lines.

acres, and will cost altogether some £250,000: Its ten floors will house a staff of 1,500.

Three units of automatic apparatus, each dealing with 10,000 lines—30,000 lines in all—will be accommodated in the building, which has been designed by C. P. Wilkinson of H. M. Office of Works.

Telephone Cable for Hungary and Belgium Ordered.

The International Standard Electric Corp., in association with its affiliated companies in Hungary, has received orders for telephone cable equipped with loading coils, repeaters and accessory apparatus to give the highest transmissipon efficiency, at a contract price in excess of 2¼ million dollars. This cable is to form part of a telephone system which will eventually connect the cities of Budapest and Vienna, as well as other main centers of the two countries.

The company has also received an order through its Belgian company in association with the Chardleroi Cable Co. for a similar telephone cable, together with accessory apparatus. The value of the Belgian order is in excess of 2¾ million dollars. This cable leading out of Brussels will be the first section of a complete cable network which will eventually join all of the principal cities of Belgium.

The equipment for both of these orders is of International Standard Electric design, and the aggregate value is in excess of five million dollars.

Recent Changes In Sales Organization of W. N. Matthews Corp.

Louis M. Meckler has recently succeeded W. J. McIlvane as New York representative of the W. N. Matthews Corp., St. Louis, Mo., manufacturers of Matthews electrical specialties. Mr. Meckler studied electrical engineering at Cooper Union night school, and while there was employed as a technical assistant in the Electrical Testing Laboratories, New York City, under F. M. Farmer, testing electrical apparatus and instrument precision work. During his post graduate year, he was chief inspector of electric equipment on the Hudson & Manhattan railroad trains.

He then entered the construction field with the engineering department of the Public Service Electric Co. at Newark, N. J., working on substation construction. While there he qualified for the position of electrical engineer for the New Jersey Public Utility Commission, which position he held for nine years. During this time he was awarded the degree of electrical engineer by Cooper Union. He had charge of the inspection of power plants, transmission and distribution lines, checking meter standards, investigation of complaints, and assisted in inventories and appraisals for security issues, mergers and rate cases.

Mr. Meckler returned to the operating field and spent two years in the office of John S. Ware, distribution engineer of the Public Service Electric Co., of Newark, N. J., in charge of the change in the distribution system from two to three-phase operation. He also had charge of the reinforcement and installation of new distribution circuits.

In April, 1925, he became sales engineer

Louis M. Meckler, Newly-Appointed New York Representative of W. N. Matthews Corp.

of the W. N. Matthews Corp. in the New York metropolitan area, and when Mr. McIlvane resigned, was appointed New York representative of the corporation. Mr. Meckler is an associate member of the American Institute of Electrical Engineers, and a member of the National Electric Light Association.

The Baltimore territory, which was formerly covered by W. J. McIlvane of New York City, will be under the supervision of H. C. Biglin, southern district manager of the W. N. Matthews Corp. The territory will be covered by J. J. Smith with headquarters in Baltimore.

J. T. Pearson, district manager in Detroit, has resigned, and the Detroit territory will be covered by H. L. Brueck, Chicago district manager. The Iowa territory which was formerly taken care of by Mr. Brueck, will be covered by W. M. Watters.

The northern section of Pennsylvania, which has been covered by the Matthews New York office, has been transferred to J. A. Jaques of the Pittsburgh office.

Prices in the Metal Markets.

New York, January 25—Copper—Dull; electrolytic, spot and futures, 14c asked. Tin—Easy; spot and nearby, $61.87; futures, $61.25. Iron—Steady; No. 1 northern, $22@24; No. 2 northern, $21@22.50; No. 2 southern, $22@23. Lead—Steady; spot, $9.25. Zinc—East St. Louis, spot, 8.10c; futures, 8@8.10c. Antimony—Spot, 22.50c.

Automatic Telephone Mfg. Co., Ltd., Has Excellent Year.

The growing importance of Liverpool as the British center of the telephone manufacturing industry is reflected in the vast amount of business handled by the Automatic Telephone Mfg. Co., Ltd., during the year just closed.

The principal manufacturer involved in the gigantic project of converting the London telephone system to Strowger automatic operation, this company is also playing a leading part in the supply of similar equipment for the provincial cities whose telephone systems have either already been converted or are scheduled for early transfer from manual to automatic.

Among the more important Strowger automatic installations completed for the British post office during 1925 by the Liverpool company are:

York	1700 lines
Headingley, Leeds	1300 lines
Stanningley, Leeds	800 lines
Roundhay, Leeds	900 lines
Chapeltown, Leeds	1300 lines
Torquay	1230 lines
Paignton	690 lines
Newport (extension)	600 lines
Cwmbran	80 lines
Risca	60 lines

Leeds—10 trunk equipments.

Nor does this set a limit to the 1925 amount of this flourishing British industry. Within the 12 months just ending, substantial shipments of Strowger automatic equipment for installation abroad have been made as under:

	Number of Lines
Tokyo (and trunking equipment)	26,900
Buenos Aires	11,700
Sydney, N. S. W. (and junction equipment)	11,900
Rosario, Argentine (and trunking equipment)	3,000
Santa Fe	2,000
Cordoba	1,000

Following up this era of gratifying industrial activity in the telephone manufacturing field, it is of further interest to record that Strowger automatic switchboards still in course of manufacture and installation by the Automatic Telephone Mfg. Co. at home and abroad, total 150, of various capacities, aggregating 136,000 subscribers' lines.

There is thus every prospect of full and continued activity in this Liverpool industry throughout 1926, and for some considerable time to come.

What the Commissions Are Doing

Up-to-the-Minute News Regarding the Activities of State and Interstate Commissions, Courts and City Councils in Matters Concerning Telephone Companies—Summary of Commission Orders and Schedule of Telephone Hearings

Faith in Town's Growth Basis of Mayor's Persistence.

Having the mayor of a town come down and camp around the office until he got an order increasing telephone rates in his bailiwick is so rare an experience for the Nebraska State Railway Commission that when it came to writing the order requested, Chairman Browne was constrained to add a number of "ifs" and "ands." Mayor Conklin, of Minatare, Neb., was the man, and the Platte Valley Telephone Co. is the beneficiary.

The town has 800 inhabitants, but the coming of at least one big sugar factory has given rise to the prediction that it will be a small-sized city in a few years. Mayor Conklin said that as this growth is certain to come, he wanted the telephone system rebuilt in advance. He brought with him a petition signed by all but five subscribers saying that they would be glad to pay added rates if the common battery plant was substituted for the magneto, with its hand ringing.

Although H. P. Johnson, the town lawyer who was the only man to refuse absolutely to sign for higher rates, wired that he had 33 persons on his petition withdrawing from the others, the commission issued the order. This gives to the company the right to increase residence rates 75 cents and business rates $1, as follows: Net rates—Individual business, wall, $4; party business, $3.50; residence, individual, $2.50; party residence, $2, with the standard rates for extensions, bells, gongs, joint-user, extra listings, added mileage and desk sets additional.

Sufficient data having been supplied by the company upon which it could act, the commission did not wait for the protestants to appear. The company's estimate of increased investment is $13,000, and it also esimated that within a year the number of town telephones will have increased to 235 and to 300 before the second year. The present Minatare plant has almost capacity use, so that if the town begins to grow there must be in any event a definite additional investment, a fact the commission says it must take into account. It adds:

"It is the opinion of the commission, not only on this application, but others which we have considered in the past, that exchanges of the size it is estimated Minatare will be within two years from this date, do not warrant the installation of common battery service as economical service.

It is doubtful whether we would require it upon petition of subscribers if the company were hostile as to the investment. It is doubtful if we would require it upon the petition of the company, when accompanied by proposal to increase rates to this extent.

The petition before us, however, has the support of both subscribers and company. The subscribers are willing to pay the higher rate, the company is willing to risk investment and its estimate of growth. We will not stand in the way of improvement, but will content ourselves with recording our seasoned conclusion that if the subscribers were willing to be served with present magneto service, lower rates would be enjoyed.

We are handicapped by not having before us seasoned estimates of operating expenses. If the exchange doubles or triples its number of subscribers within two or three years, it is certain that the expense will be very considerably heavier than in 1924. Those expenses were approximately $5,000. The added investment will call for maintenance and depreciation in amount $1,350 additional. Traffic, general and commercial expenses now amounting to $2,150, will increase very materially. The expenses at the Oshkosh exchange which has two-thirds the number of town subscribers it is estimated Minatare will have within a year or so, are $5,200 per year, excluding return on the investment.

If the proposed rates are approved by us and if the growth of the exchange approximates the company's estimate, the gross revenue should be, within one year from this time, about $800 per month, and within two years, $900 per month.

The proposed increase in plant is on so extensive a scale as to represent individual service as a maximum to 300 subscribers in the town of Minatare, with extensive cable capacity for this number of subscribers.

The rates proposed are those recently promulgated for the neighboring town of Oshkosh, after very careful investigation. Under all the circumstances we will approve the application for Minatare, without further hearing than has already been had. In that approval it must be understood that we are not passing judgment upon the extent of the reconstruction and improvement of the plant at Minatare. It may be that it will prove to be excessive advance construction, and that the rates here approved will not warrant the investment proposed.

The adequacy of the rate structure proposed is, of course, dependent upon the development of the town. Here again those who put their money in are taking the risk. If the development approximates the estimates, the rates will produce an adequate return within two years. If the development exceeds the estimates, the rates may be more than are essential. If the development is less, the rates may be inadequate to produce the full return contemplated by law. In that event, however, the question of an overbuilt plant will have to be considered, if the company complains of inadequate revenues. These statements are made for cautionary effect."

Higher Rates Effective on Completion of Improvements

The Merchants Mutual Telephone Co., operating a telephone system at Michigan City, Ind., and in the vicinity thereof, applied recently to the Indiana Public Service Commission for authority to issue and sell $250,000 par value of its common capital stock, and for the approval of a schedule of increased rates.

The commission found that Michigan City was growing rapidly, and that the applicant's plant and system was inadequate in capacity to furnish the service required; that applicant had about 5,100 stations in operation, and that the number was increasing at the rate of from 300 to 400 a year; that the capacity of the present switchboard was entirely filled, and that it would be impracticable to install a new switchboard in the present building; that it would require $203,336 in cash to pay for necessary additions and improvements, and that it would require $30,000 additional cash to pay off outstanding indebtedness, making total cash requirements of $233,336.

The applicant had made net capital additions to its plant and property during the five-year period next preceding the filing of the petition, amounting to $176,910.37, and the net capital additions proposed, would amount to $130,781, or a total net addition, made and to be made, of $307,691.37. Against this it was proposed to issue and sell at par, common stock amounting to $233,336 to retire outstanding notes of $30,000, and pay for proposed additions, the balance to repay the company in part for net additions made within the five-year period. When this program was completed, the applicant would have a total capitalization of not to exceed $350,000 of common stock, against a property which would have a book value of not less than $563,000.

The commission further found that the

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applicant's business had been economically operated; that the income for the year ended June 30, 1925, showed a net earning available for return of $20,380.82; that the increase in applicant's taxes and annual depreciation requirements, by reason of the increased property investment, after the additions were completed, would amount to $12,513.34; that it was estimated that the increased revenue from the proposed rates would approximate $32,500, and that the estimated net income under the proposed rates, would be $40,300, which was equivalent to 8 per cent on a property value of $513,000.

An examination of the evidence disclosed the value of applicant's property, as fixed by the American Appraisal Co., to be $740,316.09, the book cost to be $537,-074.47, and the tentative value fixed by the commission's engineers, to be $566,-632.44, so that it was apparent from the evidence that after the completion of the proposed additions and improvements, the property would have a value of more than $560,000, and that the net income, under the proposed rate, would yield approximately 8 per cent on the value; that the rates as proposed, except the rate of $2.75 for individual residence lines, were just and reasonable, and that the proposed rate for individual residence lines should be reduced to $2.50.

The commission held in its order: 1. That the Merchant Mutual Telephone Co. should be authorized to issue and sell at par $235,000 par value of its common capital stock, $30,000 of the proceeds from such sale to be used to pay off present notes; $66,679 to be used to replenish petitioner's treasury for money taken from the depreciation accounts and expended in additions, and the balance to be used in making additions and improvements to petitioner's property as detailed in the petition.

2. That upon the completion of the construction and improvement program, as outlined in the petition, applicant should be authorized to put in force the following schedule of rates: Business, individual line, $4.50 per month; two-party line, $3.50; joint user, $1.50, extension station, $1.25; residence, individual line, $2.50, two-party line, $2.25, four-party line, $1.75, extension station, 75 cents; rural, business, $2.50, residence, $1.50, together with the rates for private branch exchanges, hotel systems and miscellaneous rates as proposed.

Increased Rates for Sunman Telephone Co. of Indiana.

The Sunman Telephone Co., having in effect a rate of $1 for all classes of service, 50 cents for extensions, and 25 cents for call bells, applied recently to the Indiana Public Service Commission for an increase in rates, and also to increase the switching rate to subscribers who own their lines and instruments from $3 to $6 per year.

The commission found that the applicant was entitled to an increase in revenues, and that the increases requested as applying to city subscribers, wherein the company owned and furnished the entire plant and equipment, should be authorized; that under present conditions of the farming industry, an increase in switching rates from $3 per year to $6 per year was more than a farmer could afford to pay, but that the company was entitled to some increase in the switching rate, and that a compromise rate of $4.50 per year would be approved.

In the commission order, recently handed down, it held that the Sunman Telephone Co. should be authorized to charge the following gross rates effective January 1, 1926: Business, private line, $2.25 per month; residence, private line, $1.75, two-party line, $1.50, three or more on a line, $1.25; extensions, business, $1.25, residence, 75 cents; rural residence, company-owned equipment, $1.25; a discount of 25 cents to be allowed to all subscribers paying their rental bills on or before the 15th day of the month in which the bill was rendered. Rural switched stations, subscriber-owned lines and equipment are to be charged $4.50 per year, one-half to be paid in advance in January, and one-half to be paid in advance in June.

Arguments Presented in Indiana Bell Telephone Rate Case.

Taylor E. Groninger, special legal counsel of the Indiana Public Service Commission, in the hearing before the commission in the state-wide rate case of the Indiana Bell Telephone Co., during the week of January 11, recommended an increase of 1.31 per cent over the present rates. This, he said, would give the company a 6 per cent return on the fair value of its property. This investment, or the book cost, Mr. Groninger computed to be $35,-507,760.86.

The telephone company, Mr. Groninger showed, asks for a rate increase amounting to $627,960.36 a year, which, he said, would be the equivalent of 1.77 per cent on the investment. The counsel recommended that the annual depreciation allowance be decreased by the commission to 4.5 per cent instead of the 5.77 per cent now prevailing.

He took the position that the commission is legally and morally bound by the stipulation entered into with the company in 1922 to amortize the difference in rates between the rates existing in 1922 and those authorized by federal court and now in existence. This amortization will amount to more than $500,000 a year for five years, which the rate payer will have to pay.

A 6 per cent return, Mr. Groninger argued, was adequate in view of the financial relationship of the Indiana Bell with the American Telephone & Telegraph Co. and the contract whereby the former pays the latter 4½ per cent of its gross income.

Mr. Groninger attacked the company engineer's fair value figure of $45,860,871.96 for the property and said that more than $10,000,000 should be deducted for the inclusion of assumed going value and structural overhead.

James M. Ogden, former corporation counsel of Indianapolis, argued that the company is not entitled to any increase in rates. He contended that a rate base of $33,000,000 is adequate, and that the company should be permitted to earn not more than 5½ or 5¾ per cent on this valuation. He said the rate base he advocated was the book cost of the company of approximately $35,000,000, less the depreciation.

Arthur L. Gilliom, attorney general, expressed the opinion in his argument that the company is entitled to some increase in rates. He urged the commission to use the actual investment as shown by the books of the company, $35,507,760.86, as the rate base and to authorize the company to establish rates to produce a return of 6 per cent on that valuation and to authorize an annual depreciation rate of 4½ per cent instead of nearly 6 per cent which the company now charges. Mr. Gilliom found that the present rates produce only 4.675 per cent return on the investment.

House Measures Calling for Investigation of A. T. & T. Co.

Resolutions 67 and 73, introduced in the House of Representatives at Washington, D. C., early this month, respectively by Representatives O'Connor and Celler, of New York, provide for an investigation into the practices of the American Telephone & Telegraph Co. Both bills have been referred to the committee on rules.

Representative O'Connor's measure, H. Res. 67, provides that a committee of seven investigate the matter of rates in New York City and elsewhere in the United States, including the organization of the A. T. & T. Co. and its relations and connections with other companies.

H. Res. 73, introduced by Representative Celler, would empower the committee on interstate and foreign commerce to conduct an examination into the affairs of the A. T. & T. Co. "in its control of the telephone, telegraph and radio utilities throughout the country." It provides for the appropriation for the purposes of such investigation the sum of $10,000 of the contingent fund of the House.

New Toll Rates Placed in Effect in State of Florida.

Florida telephone companies at midnight of January 15, placed in operation the new toll rates increasing charges on person-to-

person calls and reducing charges on station-to-station calls. The telephone companies claim that the return under the change is about the same as under the old schedule.

Person-to-person calls are increased approximately 10 per cent; station-to-station calls are reduced about 20 per cent. The change was desired to encourage greater use of station-to-station calls.

The new rates were authorized by the Florida Railroad Commission on December 30.

New Rates Filed by Lehigh Telephone Co. of Pennsylvania.

The Lehigh Telephone Co., of Hazelton, Pa., which recently consolidated the systems of the Consolidated and Bell telephone companies in that section of Pennsylvania, has filed a new schedule of rates with the Pennsylvania Public Service Commission, to become effective March 1.

Under its operation, individual line business telephones in Hazleton will cost $5.50 a month and two-party business lines, $4.75 a month. Business houses using but one telephone will pay an increase because of extended service. The new residence rates will be $3.25 for individual line, $2.75 for two-party lines and $2.25 for four-party lines.

Hearings Resumed by Commission in New York Rate Case.

The New York Public Service Commission on Tuesday of this week, January 26, resumed hearing begun about two years ago on the application of the New York Telephone Co. for an increase in rates sufficient to permit it to earn a return of 8 per cent on its investment.

The decision of the commission to end the hearings and to fix a rate for telephone service was partly due, it was said, to the curt inquiries made by the judges of the statutory court, concerning the length of time the case has been before the commission.

Equally curt inquiries were made relative to the work of the special master, who was appointed to take testimony about 18 months ago. It was reported that the special master would not complete his inqury until next year.

Rate Increase Approved for Marseilles (Ill.) Telephone Co.

Increased rates which will yield the Marseilles Telephone Co., of Marseilles, Ill., a return of 7.4 on its investment were approved recently by the Illinois Commerce Commission. The new schedule of annual rates follows:

Individual line business	$33.00
Party line business	27.00
Business extension	6.00
Individual line residence	21.00
Party line residence	16.20
Residence extensions	6.00
Rural residence stations	18.00

Asks Commission for Aid in Switching Lines' Trouble.

N. E. Austin, manager of the Stockville (Neb.) Telephone Co., has asked the state railway commission for authority to straighten out a bad tangle he has got into with a number of farmer mutual lines, which exist in territory between his exchange and several others. Some have switching connections with two or more exchanges, and the managers express no disposition to pay for more than one switching service.

Mr. Austin says that the remedy is to increase the cost to the farmer subscribers, but their own companies won't do this, and demand consideration in the way of free service or reduced rates. This makes for no profits in the corporate companies and he desires authority to either force the payment of proper switching charges or cut off the lines that will not pay.

A division of the farm-line telephones between the various exchanges has been tried out, but this does not work out to the satisfaction of anybody.

Argument Ended in District of Columbia Injunction Suit.

George P. Hoover, on January 11, concluded his argument in behalf of the Chesapeake & Potomac Telephone Co., which is suing for an injunction to prevent the Public Utilities Commission of the District of Columbia from enforcing an order reducing the rate for unlimited telephone service and increasing the number of calls allowed under limited service.

Chief Justice McCoy has taken the matter under advisement.

The counsel for the company argued that while the evidence established that the property of the company was of the value of not less than $25,000,000, the commission, by disregarding the evidence, arbitrarily determined the value of the property to be $18,578,956.

He also pointed out in detail the errors which the company claimed were committed by the commission in determining the value of its property.

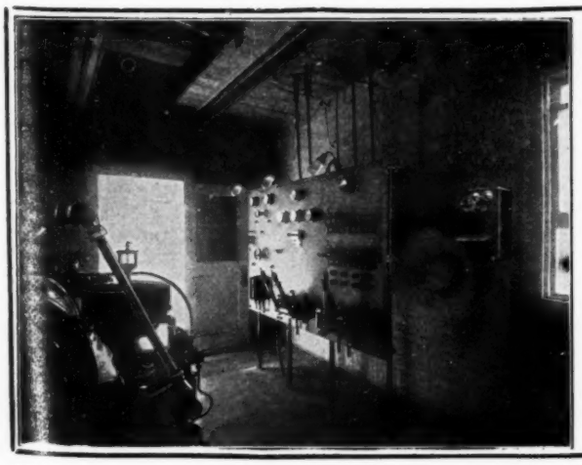
Briefs Filed With Court in New York Telephone Rate Case.

Briefs were filed by the New York Telephone Co. with the judges in the federal statutory court, on January 18, in support of its application for permission to increase its rates in New York City 35 per cent, including the present surcharge of 10 per cent, and elsewhere in the state, 18 per cent, pending final disposition of its suit against the New York Public Service Commission.

The brief says that the rates fixed by the commission were with the view of permitting a return of 7 per cent, but that all that was earned upon the actual cost of the property was 3.39 per cent, and that during the 18 months ended October 31, 1925, including the surcharge of 10 per cent, the earnings of the company have been only 4.02 per cent on the cost of the property in the state and only 3.59 on its fair value.

The brief of the public service commission and the attorney general, opposing the application was filed January 20, while the brief of the city of New York, by Corporation Counsel George P. Nicholson, was filed January 21.

The brief of the city declares a 6 per cent return is adequate and urges that the court desist from action until the commis-



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sion has completed the hearings and made a report.

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In introducing its brief the commission, by its counsel, Charles G. Blakeslee, said that if the motion of the company were granted, it would mean the end of state regulation and the substitution of the federal courts for state regulatory bodies.

Attention was called to the fact that the commission was now investigating the justice of an application of the company for higher rates, and the court was urged to postpone action until the determination of the commission had been made.

Summary of Commission Rulings and Schedule of Hearings.

ARKANSAS.

February 5: Hearing on application of the Sheridan Telephone Co. for permission to discontinue its line and service between Sheridan and Prague, a distance of 11 miles. The petition says the subscribers have dwindled to one man and that the cost of maintaining the line is greater than the revenue derived from it. A rural telephone line parallels the Sheridan company's line over which the subscriber can obtain service without inconvenience.

CALIFORNIA.

January 18: The Reedley Telephone Co., operating in the town of Reedley, Fresno county, authorized to place in effect the standard charge of $3 for moving location or changing type of telephone instruments.

January 18: The Sunland Rural Telephone Co. given permission to use $1,500 of proceeds from sale of stock heretofore authorized by the commission for additional toll facilities and to pay balance due on switchboard, and remaining proceeds for additional cable.

January 20: The Home Telephone Co of Covina authorized to issue 1,182 shares of its common stock at $100 par value, to refund 2,364 shares of common stock of the par value of $50 per share, now outstanding.

March 19: Hearing at Jackson on the application of the Volcano Telephone & Telegraph Co. for permission to file rules and regulations governing service connection and toll charges, continued from January 14.

ILLINOIS.

January 5: Order approving supplemental agreement dated September 1, 1925, between the Illinois Bell Telephone Co. and the Macomb Telephone Co. for the modification of a toll service traffic agreement dated February 1, 1919, between the Central Union Telephone Co., now the Illinois Bell Telephone Co., and the Macomb Telephone Co. by the inclusion of the exchange at Brooklyn, etc., as set forth in order.

January 6: Order suspending until May 27, 1926, proposed rates for telephone service in Ramsey, Fayette county, stated in rate schedule Ill. C. C. 1, sheet 2 of the Peoples Mutual Telephone Co.

January 6: Order suspending until May 28, 1926, proposed rates for telephone service in Kempton, Ford county, stated in rate schedule Ill. C. C. 2 of the Kempton Telephone Co.

January 6: Order authorizing the Divernon Telephone Co. to purchase at par $8,800 aggregate par amount of the common capital stock of the Pawnee Telephone Co., consisting of 88 shares of par value of $100; also, authorizing the Divernon Telephone Co. to issue and sell $9,000 aggregate principal amount of its series "B" first mortgage bonds, dated May 1, 1924, maturing May 1, 1934, bearing 6 per cent interest per annum, bonds to be sold so as to net company not less than 90 per cent thereof of their face value and accrued interest.

January 6: Order suspending until May 20, 1925, proposed rates for telephone service in Yates City, Douglas and vicinity, Knox county, stated in rate schedule Ill. C. C. 1, original sheet 2 of the Yates City Telephone Co.

January 27: Hearing before Commissioner Trovillian at Bloomington, in the matter of complaint of E. R. May against the LeRoy Telephone Co. relative to discontinuance of certain telephone connections between the office and residence of complainant in LeRoy, McLean county.

January 27: Hearing before Commissioner Wm. J. Smith at Bloomington, in the matter of the application of the Illinois Bell Telephone Co. and Kinloch-Bloomington Telephone Co. for the approval of the sale by the Illinois Bell Telephone Co. and the purchase by the Kinloch-Bloomington Telephone Co. of certain telephone toll line property in Bloomington and vicinity.

January 28: Hearing before Commissioner Wright at Pontiac, in the matter of application of the Flanagan Mutual Telephone Association for a certificate of convenience and necessity to construct and operate a toll telephone line from the central office at Flanagan north one-half mile, thence west 3½ miles, thence north one mile, thence to connect with toll line of Minonk Telephone Co. for service between these points in Livingston and Woodford counties.

January 29: Hearing before Commissioner Wm. J. Smith at Galesburg, in the matter of the joint application of the Galesburg Union Telephone Co. and Intra-State Telephone Co. for an order approving sale by the former company and purchase by the latter company of all of its telephone property in the city of Galesburg and vicinity, county of Knox, for a certificate of convenience and necessity to the Inter-State Telephone Co. to operate the property; also for authority to issue $700,000 par amount of common capital stock.

January 29: Hearing before Commissioner Trovillion at Albion in the matter of proposed advance in rates of the Commercial Telephone & Telegraph Co. for service in Albion, Edwards county, stated in rate schedule Ill. C. C. No. 2 of the company. Petition for rehearing filed by the Commercial Telephone & Telegraph Co.

INDIANA.

January 16: Authority granted for the Southern Indiana Telephone & Telegraph Co. to issue $136,000 in par of its first mortgage bonds to pay for the purchase of the Greene County Telephone Co. and the Loogootee Telephone Co. and to reimburse the treasury for expenditures and to provide money to pay for additions and extensions to be made in 1926.

NEBRASKA.

January 19: Complaint filed by Port Wilkins against Eustis Telephone Exchange, alleging unsatisfactory emergency service at night.

January 20: In the matter of the application of the Platte Valley Telephone Co. for permission to increase rates at Minatare exchange; in opinion of the commission the growth of the exchange in the next two years does not warrant the installation of common battery as economical, but in view of the fact that both patrons and company desire this done, order issued in accordance with requests made.

January 20: Application filed by Farmers Home Telephone Co. for increase of rates at Shelton and Gibbon, accompanied by statements of patrons of willingness to pay whatever is necessary for better service.

January 21: Application filed by Stockville Telephone Co. for authority to sever certain rural line connections.

January 21: Hearing held at Orleans on request of patrons of Farmers & Merchants Telephone Co. of Alma for increased Sunday and holiday service; testimony adduced and matter taken under advisement.

January 22: In the matter of the application of the Glenwood Telephone Co. for authority to charge 5-cent toll rate for messages both ways between Red Cloud and Blue Hill; this being in accord with suggestion made by commission, request was granted.

January 22: In the matter of the complaint of farmer patrons of Stanton Telephone Co., order issued requiring company by June 1, 1926, to build or purchase all stub lines on rural lines and maintain them; it being provided that where any disagreement in price arises where a purchase is in contemplation, the commission shall act as arbiter.

NEW YORK.

January 26: Hearing held at New York

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Western Elec. Co., No. 250 W. Transmitters complete @	1.25
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Chicago Tel. 4-bar 1000 or 1600 ohm Bdg. compacts, $6.50; 5-bar @	7.50
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Monarch 3-bar 1000 or 1600 ohm. Bdg. compacts, $7.00; 4-bar, $7.50; 5-bar	9.00
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FOR SALE—The management of a prosperous Common Battery Telephone plant will sell a substantial interest in the business to a reliable, experienced telephone man, familiar with either the mechanical or commercial department of the telephone business. About $15,000.00 to $20,000.00 necessary to handle. Address No. 6463, care of TELEPHONY.

FOR SALE—Group of several exchanges in good Illinois rural territory capable of considerable development. Operating 1500 town and rural stations. Plant in excellent shape; towns all cabled. Rates recently increased. Local financing possible. Address 6464, care of TELEPHONY.

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FOR SALE—200 Monarch Receivers, 800 Ericsson Receivers, 500 Ericsson Transmitters, 500 Holtzer-Cabot 1600 ohm Ringer Movements, 200 Holtzer-Cabot 3 bar generators, 600 3 bar 1600 ohm Compact Holtzer-Cabot Telephones with Ericsson talking circuit, 2 ½ Amp. Noiseless Tungar Rectifiers. Priced to sell. Creston Mutual Telephone Company, Creston, Iowa.

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on complaint against the maximum rates, charges and rentals of the New York Telephone Co. for service as fixed by the orders of the commission in cases Nos. 377 and 7720, dated January 25, 1923.

OHIO.

January 19: Following the hearing, and after certifying a tentative valuation, which in absence of protest became final, the commission entered an order authorizing the Perry County Telephone Co., if and as the lease thereof by the Newark Telephone Co. shall be cancelled, to purchase the property of the Somerset Telephone Co. for the agreed consideration of $23,000. For the furnishing of unified service in the Somerset exchange, which will include Glenford, the Perry County company was authorized to establish the following monthly rates:

	Business	Residence
Individual	$4.00	$2.50
Two-party	3.50	
Four-party		2.00
Rural	2.50	2.00

January 19: The Ohio Bell Telephone Co., pleading that the period of suspension of its proposed new Columbus rates will expire March 31, asked the commission to determine the amount of bond which it shall file, as it desires to put the rates in effect on that date. Alleging that the new rates will increase annual revenues $383,000, the company suggests bond for $192,000.

January 20: The Perry County Telephone Co. filed with the commission a new schedule of rates effective February 1, increasing rates approximately 25 per cent in New Lexington, New Straitsville, Corning and Shawnee. The new rates will affect about 5,000 subscribers.

February 9: Hearing on investigation as to reasonableness of the increased rates filed by the Ohio Bell Telephone Co. for Springfield, suspended for 120 days from December 17.

February 18: Hearing on petition filed by the business and professional men of Fairpoint asking that the Ohio Bell Telephone Co., which has a line running into the village, be compelled to furnish service. The petitioners allege that the service formerly furnished by the Flushing Telephone Co., was recently discontinued, exchange having been destroyed by fire.

OKLAHOMA.

January 26: Hearing on complaint of Erwin Johnson against the Washita Telephone Co., alleging violation of the commission's order. No. 912.

January 27: Hearing on case of Lehigh Telephone Co. vs. the Southwestern Bell Telephone Co., seeking to establish toll rates between Lehigh and Coalgate.

OREGON.

January 12: The Hillsboro Telephone Co. withdrew its application for increased rates filed recently with the commission.

PENNSYLVANIA.

January 2: New rate schedules filed by the Lehigh Telephone Co., of Hazelton, effective March 1.

TENNESSEE.

January 19: Hearing held on complaint filed by the Cumberland Orchard Co., a few miles from the Wartburg exchange, against the Gainesboro Telephone Co. regarding the latter's action in discontinuing telephone service to its offices.

WISCONSIN.

December 31: New and increased schedules of rates approved for Roberts, Columbus, Stevens Point, Hudson and Sturtevant exchanges of the Wisconsin Telephone Co.

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